PRICE 10 CENTS BY THE YEAR $1.00

THE RAILROAD MAN'S MAGAZINE

JULY

THE FRANK A MUNSEY COMPANY NEW YORK AND LONDON

THE RAILROAD MAN'S MAGAZINE

CONTENTS FOR JULY

SERIALS

Home at the Way-Station. Part I. — J. Aubrey Tyson
Richard Hughes, Railroad Detective. Part III. — Johnston McCulley
Snow on Fire. Part II. — George Preston Hubbard
By Right of Purchase. Part IV. — Harold Bindloss

SHORT STORIES

An Argument of the Rails. (Illustrated) — Emmet F. Harte
The Missing Bondsboy — Arthur Hoyt
Bassnger's Last Track. (Illustrated.) — George W. Hoyt
A Man's Interests — Herbert F. Hamblen
Flannery's Dream. (Illustrated.) — Edgar Welton Cooley
The Vanishing Asia. (Illustrated.) — Harris M. [illegible]

SPECIAL ARTICLES

John Bull, the Oldest Locomotive in America. (Illustrated.) — Vincent Tavner
The Men at the Top. No. 2. Yardmen, Fighters and Railroad Builders. (Illustrated.) — Cuthbert Ellis
(Illustrated.) — Eugene F. Weekes
(Illustrated.) — J. E. Smith
Around the Globe by Rail. No. 7. Things That Happen Every Day Along the Siberian Front on the Southwest. (Illustrated.) — Gilson Willets
The Inside History of Great Inventions. No. 4. Stella the Magic Typewriter. (Illustrated.) — C. F. Carter
Along a Race on the Iron Trail. True Story, No. 22. (Illustrated.) — John L. Rue
Help for Men in the Holy Dismissive. No. 12. The Railroad of To-Morrow — John Elbert Wadsworth

VERSE AND DIVERSE

What the Wires Say. (Poem.) — Edith Livingston Smith
By the Light of the Lantern — Forrest C. Smith
Human Railroad Forces
Railroad Puzzles

MISCELLANEOUS

The Miracle of the Indian Mail
Bell-Call of Ventnor
Locomotives Without Fire
Oil the Main Line
Figures Fight for Space
News From the Front
The Sea-Going Railroad
Big Arthur at the Empire State. (Illustrated.)
London's Underground Typewriter
Oil the Editorial Carpet
Full Speed Ahead
Railroad Man Talks Back
Industrial Roll of Honor
Good Table Manners
Characteristic Clubhouse
The Fast Railroad Force
Gumbino's New Opera Secured
Creditable to Both
Fatherly French Railroads
The Railroad That Was Stolen

ISSUED MONTHLY BY THE FRANK A. MUNSEY COMPANY, 175 Fifth Avenue, New York, and Temple House, Temple Avenue, E. C., London

THE RAILROAD MAN'S MAGAZINE

Vol. VI. JULY, 1908. No. 2.

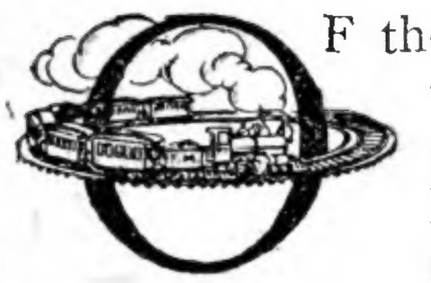
John Bull, the Oldest Locomotive in America.

BY VINCENT TOWNE.

SEVENTY-SIX years ago a tiny locomotive of English make was set on the rails of the Camden and Amboy Railroad at Bordentown, New Jersey, and put to work. That same little ten-ton locomotive rests to-day in the East Hall of the National Museum in Washington, its work finished, its leisure well earned.

Other locomotives ran on American rails before John Bull, but they have long since vanished. He alone remains, the patriarch of his tribe, lineal progenitor of the panting monsters that drag our mile-long freight-trains or flash across the continent at racing speed with the strings of "varnished" cars. So we do him honor here, veteran and sole survivor!

What the Old Engine Has Done to Earn the Repose It Now Enjoys in the National Museum in Washington.



OF the thousands of curiosities which Uncle Sam has collected in his treasure-house, the National Museum, at Washington, that which seems to afford the greatest feast for eyes is the veteran locomotive John Bull, oldest iron horse in the Western Hemisphere.

This rugged patriarch is the direct ancestor of all modern American species of locomotives, all of which—regardless of the manifold outbreedings and cross-breedings of seventy-five years—still show the parental characteristics, strongly marked, somewhere in their anatomy. He is the most petted, most caressed, iron steed that ever breathed the hot breath of life, and the most luxuriously stabled.

In the twenty-four years that he has been pensioned in Uncle Sam's custody, millions of men, women, and children have gazed upon him with admiration, and, as I said, with affection. One of his keepers tells me that it is by no means unusual to see, not only little children, but grizzled men, pat him tenderly, as though he were a tame horse of flesh and blood.

The stable in which he is kept is the great East Hall of the museum. Sightseers from all the climes of Christendom, and beyond, look down upon him from galleries lined with cases of curios, look up at him from the floor on which he stands, surrounded by models of other veterans of the rail who have gone before and above whom he towers like a giant.

He faces the Goddess of Freedom in the rotunda beyond the big hall, and above him hovers, with wings outstretched, one of the flying machines of the lamented Professor Langley. But he is the cynosure of all the myriad eyes which squint curiously and blink wisely at the sights which a generous government has spread out for all men in its vast cabinet of curiosities.

Quiet, but Not Dead.

Although John Bull stands here today as still and cold as death, he is far from powerless. In the wee small hours of the night, between the rounds of the stealthy watch, and when, 'tis said, there sometimes come rattlings and gibberings from Skeleton Hall near by, should some other ancient creature of the shadowy hall make bold to twit old John about his day being over, or the likes of that, he might retort, and right honestly, too:

"Rot, fellow, rot! I heard that yarn in '93, when they said I wasn't good for a run to the World's Fair. Egad, I could have my fling to-day again, and many a one, if they'd but give me a good feed of black diamonds!"

But before we get to John's fling in '93, when he proved himself the gamest sport of the entire locomotive fraternity, let us take a look at his history. It had long been forgotten until one of the scientists of the National Museum, who had been a railroad man in his younger days, dug it out of many a moldy letter and record and resurrected it from many a veteran railroader's memory.

This historian of John Bull, the man who later liberated the old veteran and gave him his notable trip to the World's Fair, was the late Dr. J. Elfreth Watkins, Curator of Technology in the National Museum and one-time director of the Field Columbian Museum, Chicago. John Bull's story, which I base upon Dr. Watkins's published history of the old locomotive, was as follows:

In 1830, that part of the Pennsylvania system now known as the Amboy division was an independent road, the Camden and Amboy Railroad. Its old strap-rails had just been laid, and cars drawn by horses were passing over it. Robert L. Stevens, who later became famous as the inventor of the present system of American railroad track and as the constructor of the best steamboats of his time, was president of the new line.

Hearing of the success of the strange "locomotive engines" then commencing to appear in England, Mr. Stevens decided to order one for the Camden and Amboy. So, in 1830—seventy-eight years ago—he embarked for the mother country on his errand.

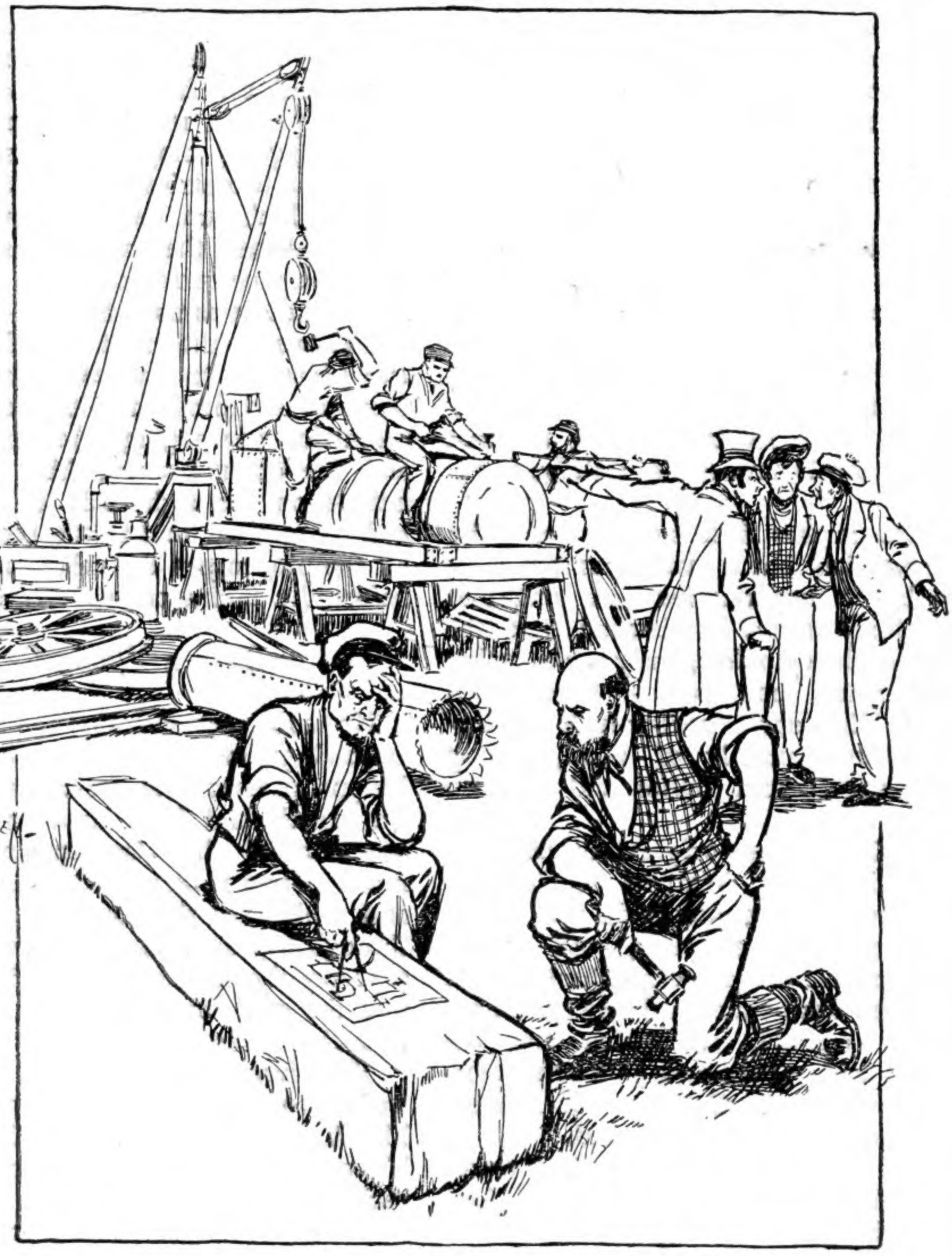
The Liverpool and Manchester Railroad had lately been opened, and the famous "Rainhill trial" of the strange locomotives which pioneer builders offered for that road had just been held. Many of the defects of the "Rocket," the victor in that memorable contest at Rainhill, had been discovered by Stephenson & Co., of Newcastle-on-Tyne, who forthwith produced an improved engine, the "Planet," which was the most successful locomotive then in existence.

Soon after Mr. Stevens's arrival at their works, he witnessed a trial of the "Planet," and being pleased both with its performance and the novel details of its construction, he ordered Stephenson & Co. to build a similar engine for the Camden and Amboy. Thus was the order for John Bull given to the pioneer locomotive-builders at Newcastle-on-Tyne.

John breathed his first breath of life in May, 1831, and early the next month he was shipped to Liverpool and there loaded on the ship Allegheny, bound for Philadelphia. He started on his voyage on July 14, the great holiday which the French celebrate as the birthday of their liberty—the anniversary of the fall of the Bastile.

The original bill of lading was exhibited by Dr. Watkins in the Pennsyl-

vania Railroad Building at the Columbian Exposition, as was the original account with Stephenson & Co., which shows the price paid for "Johnnie" to have been seven hundred and eighty-four pounds, or three thousand eight hundred dollars.



THE MACHINISTS AT BORDENTOWN HAD TO PUT THE "JOHN BULL" TOGETHER BY RULE OF THUMB, AS THE ENGLISH BUILDERS SENT NO WORKING DRAWINGS.

Lands in America.

The locomotive arrived at the Chestnut Street wharf, Philadelphia, the middle of August, 1831. Mr. Stevens detailed Isaac Dripps, then a very young man—later master mechanic of the Camden and Amboy—to superintend its removal to Bordentown, New Jersey, famous in those years as the American home of Joseph Bonaparte, brother of the great Napoleon and exiled king of Spain.

Mr. Dripps had the English wonder placed aboard a sloop, which sailed it up the Delaware to its destination. It arrived there ten months after Mr. Stevens had contracted for its construction.

But when the time came to put the

locomotive together, the machinists at Bordentown found themselves confronted by a Japanese puzzle. No working drawings had been sent by the makers. After some days of trying and tinkering and saying emphatic things, the parts were at last assembled, and what was then the finest locomotive in the Western Hemisphere was placed upon the track.

Steam was raised during the last days of August, and the official designation given to the engine was "No. 1," although the employees christened it "John Bull," a name that stuck ever after.

As we have stated, horses had hauled the cars on the Camden and Amboy previous to this time, and the consternation of the country folk when they first saw the iron horse rumbling along the east bank of the Delaware can well be imagined.

When it was first set up, the John Bull weighed but a trifle over ten tons. The boiler was thirteen feet long and only thirty inches in diameter, and the little inside cylinders, only nine inches in diameter, had but a twenty-inch stroke. The four fifty-four-inch driving-wheels were mainly of wood, having locust spokes and fellies and an iron hub.

A pair of these original drivers was exhibited by Dr. Watkins at Chicago. They were set up alongside this nestor of American locomotives, and closely resembled the modern cart-wheel, except that there were added a flanged tire and, on the outside, crank-pins for the parallel rods; but, owing to the sharp curves in the old Camden and Amboy, these rods could never be used.

That the Camden and Amboy established America's standard gage of four feet eight and one-half inches is a fact as little known as it is interesting. The fire-box of John Bull was constructed for burning wood, then plentiful along the Jersey shore of the Delaware.

The many railroad men who spend hours in the National Museum feasting their eyes upon this veteran locomotive are at first puzzled by its tangle of levers, handles, and hook-rods, and express their admiration for the pioneer mechanics and enginemen who, with no previous experience, had the pluck to take John Bull by the horns and break him in. After the valves were in gear and the engine in motion, two levers on the engineman's side moved continuously back and forth.

When the engineman wished to stop he worked these levers backward and forward with his own hands, and so much skill did he acquire that he was able to pull up true to the mark. The reversing-gear, too, was most complicated, the eccentrics being fastened to a sleeve which ran loosely on the crank-shaft, between the two cranks, thus allowing a free turning.

A treadle was used to turn this eccentric sleeve to the right or left, when it was necessary to reverse. Two carriers were secured firmly to either side of the eccentrics, one urging "Johnnie" ahead and the other backing him. A small handle on the right side of the boiler had to be used to lift the eccentric-rod off the pin, to put the valves out of gear before the engine could be reversed.

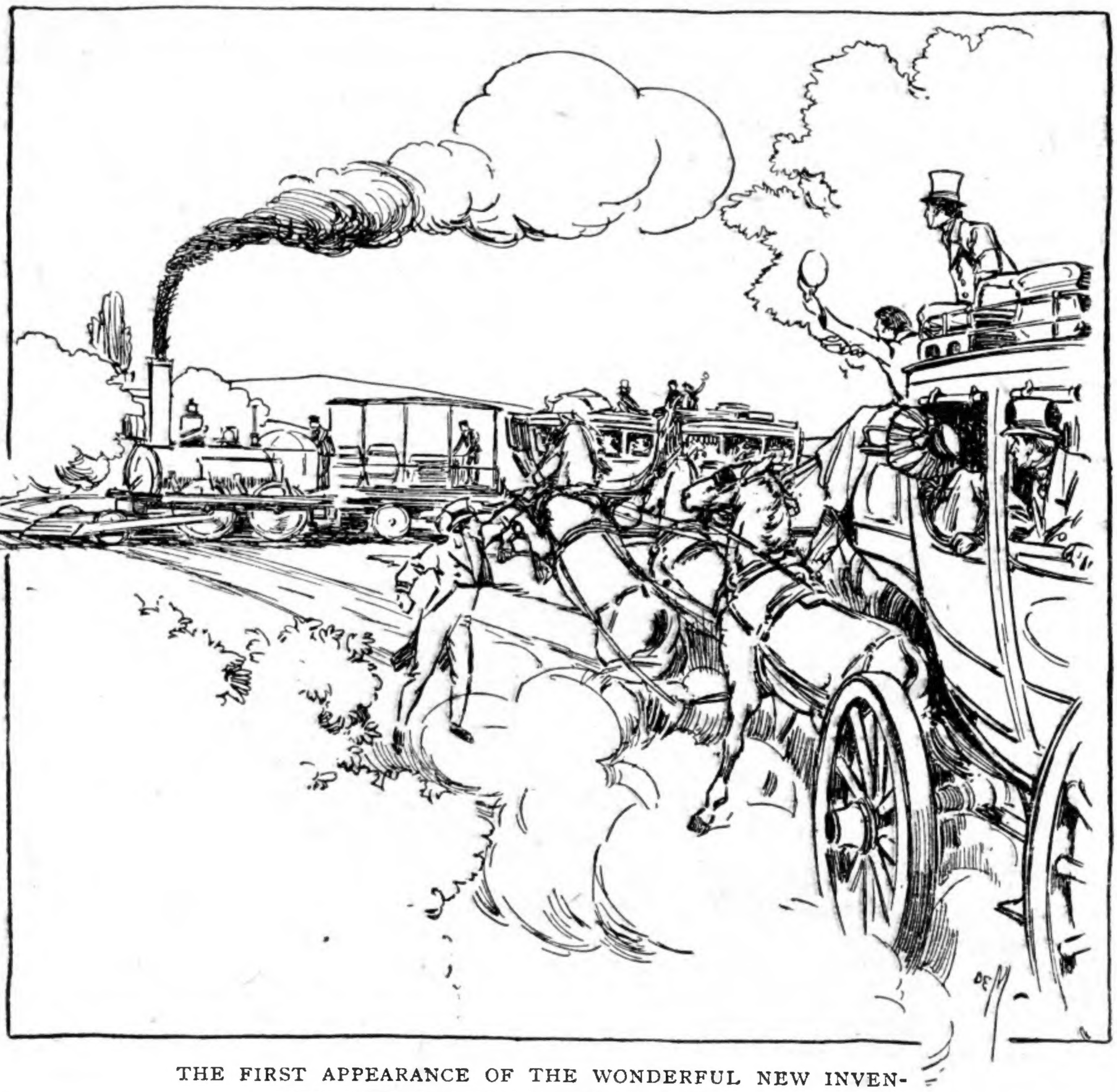
Its Tank a Whisky-Cask.

No tender accompanied the locomotive from England, and to meet this need Mr. Dripps pressed into service an old flat car which had been used in the construction of the Camden and Amboy road. Upon it he placed a large whisky cask which fed the pumps of the engine through a piece of leather hose made by a Jersey shoemaker. This tube was run into the cask through a hole in the bottom of the car.

The first cars drawn by John Bull were two stage-body coaches made by M. P. and M. E. Green, of Hoboken. They were a sort of cross between a hay-rack and an open street-car of to-day, but the two pairs of big wheels were close together nearly under the center of the floor.

They were of the "English pattern," and the modern English railway coaches of to-day have deviated from them but slightly in general interior arrangement. They were originally made to be drawn by horses, if necessary; for our great-grandparents at that time had little faith in the success of steam upon their railways.

John Bull having by that time been put in condition satisfactory to Mr.



THE FIRST APPEARANCE OF THE WONDERFUL NEW INVENTION SPREAD CONSTERNATION THROUGH THE PEACEFUL JERSEY COUNTRYSIDE.

Dripps, the Camden and Amboy officials, on November 12, 1831, invited the Legislature of New Jersey to participate in the first railroad movement by steam in the State.

After much hesitation on the part of many of the lawmakers, who did not care to expose their lives to a boiler explosion or derailment, a goodly proportion of that distinguished body boarded the coaches and made the first regular trip behind John Bull.

Mme. Murat, wife of Prince Murat—a nephew of Napoleon, who was sharing Joseph Bonaparte's exile in Bordentown—insisted upon being included in the delegation, and was, therefore, the first woman to ride on a train propelled by steam in New Jersey.

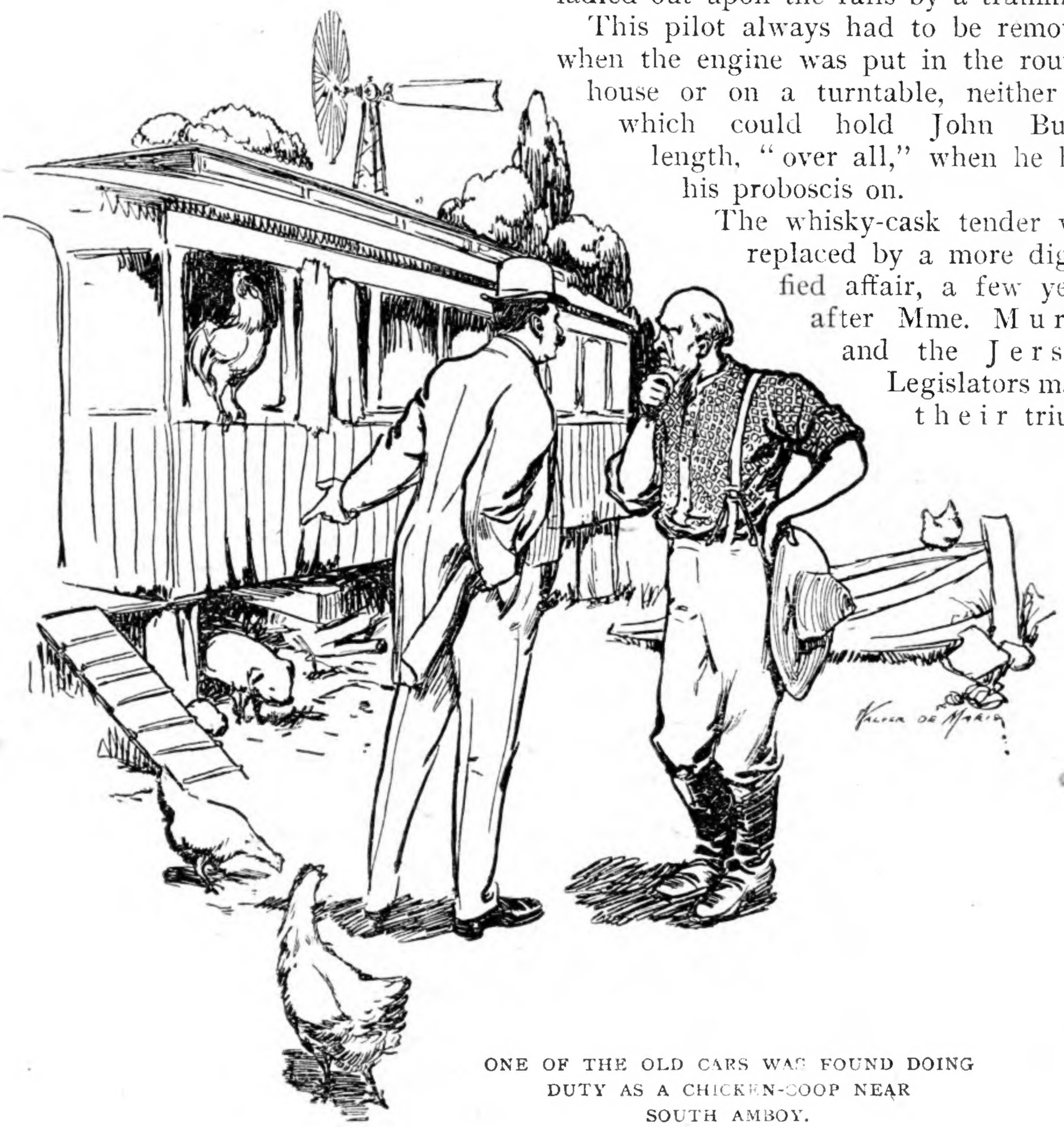
On November 12, 1891, the sixtieth anniversary of this first trip of John Bull, a celebration was held in Bordentown, and a granite monument was dedicated by the Pennsylvania officials. Dr. Watkins, in an address at that time, told the assembled guests the story of the veteran locomotive and its important place in the history of American railroading.

Father of American Locomotives.

John Bull was the progenitor especially of that type of American locomotive which has survived through the more than seventy-five years of our experiments in locomotive construction. Its multitubular boiler, horizontal cylinder, and artificial draft—caused by the exhaust of steam—are features still found in the best types of American locomotives.

A short time after John Bull was placed on the rails at Bordentown, Matthias W. Baldwin, of Philadelphia, then a poor mechanical-instrument ma-

ker, was commissioned by the Philadelphia, Germantown and Norristown Railroad Company to build a locomotive for that line. Being anxious to become acquainted with the construction of the British wonder, he visited Bordentown and examined the mechanism with infinite care, making minute measurements and elaborate sketches of all the complicated parts.



ONE OF THE OLD CARS WAS FOUND DOING DUTY AS A CHICKEN-COOP NEAR SOUTH AMBOY.

Thus did the father of the greatest locomotive works in the New World receive from John Bull the inspiration which led to his fortune. How closely he followed the lines of the English locomotive may be seen in the model of his first engine, "Old Ironsides," preserved in the National Museum.

Very few changes have been made in John Bull since Mr. Dripps put it together, at Bordentown, seventy-six years ago. Its first pilot, or "cow-catcher," added in 1832—largely as a guard against derailments on sharp curves—rested upon a pair of wheels. A box placed on the platform of this protuberance contained sand, which was ladled out upon the rails by a trainman.

This pilot always had to be removed when the engine was put in the roundhouse or on a turntable, neither of which could hold John Bull's length, "over all," when he had his proboscis on.

The whisky-cask tender was replaced by a more dignified affair, a few years after Mme. Murat and the Jersey Legislators made their triumphal trip. The new tender was given a square body, large enough to contain a water-tank and fuel-bin, and a front extension of the roof, like that on a modern coupé, which gave some shelter to the engineman.

Changes with the Flight of Time.

In the center of the roof's rear edge was placed a gig-top upon which sat the brakeman, with his feet upon the top of a large wooden T, the lever of the fric-

tion-brake. Another lever, under the front roof, was made handy to the engineer, in case of emergencies.

Later, the dome of John Bull was moved from over the furnace to the forward end of the boiler, close behind the stack. A bell was placed behind the dome, for in John's first days his engineer was supplied only with a faucet-whistle wherewith to warn passengers.

When this whistle was worn out, it was replaced with one of more modern construction. With the exception of these few changes, John Bull is practically the same to-day as when he was given his first trial along the banks of the Delaware in 1831.

John Bull had been out of commission for some years when, in 1883, the Pennsylvania Railroad deposited him in the National Museum. Here he reposed until early in 1893, when the Pennsylvania was arranging its exhibit for the great Columbian Exposition at Chicago.

Since Dr. Watkins knew more than any other man living about the great system's history, the evolution of its locomotives, rolling-stock, signals, and permanent way, and the statistics of its development, the National Museum was asked to give him a furlough that he might prepare the company's exhibit at the World's Fair.

This was done, and while the work was progressing, Dr. Watkins conceived the idea of putting John Bull in shape, and actually running him to Chicago and back under his own steam. Many railroad men doubted the possibility of this, but Dr. Watkins had his way and sent the veteran to the Pennsylvania shops, near Jersey City. Here he was "gone over" carefully and all leaky and corroded parts repaired, but the original mechanism was left alone as far as possible.

All Aboard for the Fair.

Drawing two old cars built in 1836, John pulled out of the Jersey City train-shed at 10 A.M., Monday, April 17, 1893. The passengers were railroad officials, including F. Walcott Jackson, general superintendent of the United Railroads of New Jersey Division, and Geo. W. Boyd, general passenger-agent.

The crew was selected from veterans of the service. The conductor, W. T. Bailey, had been a passenger conductor since 1859. Jonas Hagar, selected as the "gig-top waterman," had been appointed to a like position in 1849.

Thomas Gallagher, rear brakeman, had been railroading since 1849. Albert S. Herbert, the engineer, had served in like capacity on the John Bull itself in the early fifties. G. W. Zengel, of Newark, was chosen for fireman.

President Cleveland and the Governors of all the States through which the train should pass received special invitations to ride to Chicago, or so much of the way as they might choose. Passes were issued, also, to representatives of the principal newspapers of the cities and towns lying along the route.

Tracing the Coaches.

The old coaches which carried the various passengers over the distances specified on their passes were not of a character to tempt protracted travel. When it was decided to rehabilitate the old train, Dr. Watkins had considerable difficulty in finding his cars.

One was traced to a farm near South Amboy, where it had been serving as a chicken-coop for a quarter of a century. The farmer had bought it at a junk sale, had removed the trucks, and had set the body up on posts.

This thrifty owner, on finding his hennery possessed of great historical value, demanded a price that represented heavy compound interest on his original outlay. The matter was adjusted to his satisfaction, and the men in the company's car-shops restored the faithful hen-coop to its previous cleanliness and dignity.

The other old coach could not boast of a history quite so romantic. Some years before it had been found among a mass of rubbish in the lumber-yard of a small New Jersey town, and had been taken to the Meadows shops by a far-sighted official of the company, who had foreseen that it would some day be wanted for just such an occasion as the tour to the World's Fair.

After a run through its former Jersey haunts—a trip which was an ovation

throughout—the quaint old train pulled into Broad Street Station, Philadelphia, seven hours and fifty minutes after leaving Jersey City. At the great Quaker City terminal it was greeted by thousands of curious people.

As soon as it pulled up to the platform it was boarded by fifty boys, while a couple of hundred more fought for the honor of having placed foot upon it. A dozen climbed on the tender roof and threatened to break it through.

That night John and his two cars pulled out for Harrisburg, and even after the hour had grown late for quiet country folk, the stations passed were crowded with cheering people. When he arrived next morning at Harrisburg the depot gates were thrown open that the citizens might inspect the old veteran.

Although he left the Pennsylvania capital an hour and seventeen minutes late, John Bull got frisky as he approached the mountains, and was "on time" at Huntingdon, where he was greeted by a procession, a gala display of bunting, a screeching chorus of steam-whistles, and the booming of cannon. Schools and factories in the busy Pennsylvania towns along the line suspended during the time the train remained within their precincts.

Old John climbed the Alleghanies that afternoon without mishap or assistance. Pittsburgh was reached on schedule time, at 5.25 the following morning, the second day out from Jersey City. So vast was the crowd along the Liberty Street wall that the fence gave way and fifteen person were thrown to the ground, ten feet below.

Ten thousand Pittsburghers viewed the train, and at nine o'clock it started on for Chicago in charge of a new crew composed of Engineer Henry O'Neil, Fireman A. Ward, Conductor John Bevington, Brakemen J. McClelland and C. V. Blockstock, and "Gigman" V. T. Peoples, all Pennsylvania veterans.

With continued ovations at every town and village, John Bull pulled up for that night at Wooster, Ohio. The day following he held his own in the teeth of a driving storm of rain, snow, and sleet, a memorable late spring blizzard which laid low the telegraph lines along his route through the Buckeye State. Undaunted by this raging storm, a great crowd welcomed his arrival at Lima, Ohio.

Chicago! All Out!

Chicago was reached at last, on the fifth day, and the little train halted in the Union Station at 3 P.M. This was Saturday, April 22. The average speed for the entire run of nine hundred miles was more than fifteen miles an hour. On one straight stretch the old locomotive made forty miles an hour.

The career of John Bull at the World's Fair was crowned with as much success as was his triumphal trip to the western metropolis, and he was one of the seven wonders of the Exposition. The Baltimore and Ohio exhibited its old veterans—"Sampson," "Pepper-sauce," and the old "Camel Back"; the Old Colony showed the "Daniel Nason," and the Chicago and Northwestern the old "Pioneer," the first locomotive to venture as far west as Chicago; but John Bull was a patriarch compared with these, and was the only one of them able to run under its own steam.

During his first four months at the Fair he was permitted to rest, and his only duty was to stand still and be admired. He occupied a track in the open air, near the Pennsylvania Railroad building, and around him an interested crowd could always be found.

John on the Job Again.

But on "Transportation Day," September 9, 1903, he was transferred to the terminal station of the exhibition grounds, fired up, and repeatedly run to the end of the yards and back during the day. So great was the demand for these complimentary rides on the quaint train that Dr. Watkins decided to run it up and down the long track one day of every week thereafter until the close of the Fair.

Over fifty thousand passes, bearing John Bull's portrait, were issued during those six weeks, an average of over eight thousand for each day that he was under steam. Throngs of interested

people surged within the Pennsylvania Railroad building on each of these days when "Johnny" was bulletined to run, and the most congested spot on the grounds was before the turnstile, where lines of passengers were admitted, fifty or more at a time, to make the short trip to the end of the terminal-yard and back.

The ancient train's return trip from the Fair was a repetition of the ovation which it received when traveling westward. It left Chicago, December 6, 1893, and made daylight trips over the Panhandle route to Pittsburgh, over the main line to Harrisburg, and thence to Washington, where it arrived, December 13, without an accident or mishap of any kind.

The engineer on the return journey was Wilson Banks, a skilled mechanic of the Altoona shops, who had been detailed to the Pennsylvania's building inside the Fair grounds. Dr. Watkins discovered that Banks could do his turn equally well at painting, carpentering, plumbing, and model-making.

But not until the proposition to run John Bull inside the Fair grounds arose did the doctor learn that his mechanical aid was also an engineer. Having made good on the first exhibition run of the old train, he was given full charge on all succeeding trips, and was finally selected for the honor of driving the oldest American iron horse back to his Washington stable.

The veteran engineer who drove Johnny to the Fair in the spring-time had an easy task of it compared with that now given to Wilson Banks, and if any one wishes to know what practical winter railroading was back in the thirties, Banks can give him some pointers, if he is still at Altoona.

LITTLE JOHN BULL CREATED A STIR WHEN HE APPEARED AMONG HIS GIANT DESCENDANTS IN THE CHICAGO UNION STATION.

He had no cab to shelter him during that nine hundred miles of slow travel over the snow of the prairies and through the wintry blasts of the mountains. Only a piece of tarpaulin protected him from the cold, which once became so great that it froze the steam-gage solid.

But Wilson Banks was game to the last, and I ought to know, for I came part way home with John Bull myself, perched up in his gig-top, which was a good place from which to view the country, save when we went through tunnels. Then a country smoke-house was far preferable.

THE MIRACLE OF THE INDIAN MAIL.

One of the Marvels of Modern Civilization That Is Only Remembered and Understood When It Is Missed.

THE precision of this workaday world is nowhere so well illustrated as in the mail-service. The mighty scheme of order, the well-oiled, smoothly running mechanism of civilization, may be said to be typified in this most wonderful accomplishment of human organization.

Of course the railway is the most responsible factor in this modern fairy tale of unspoken words, weaving in and out unerringly over five continents; and to gain a faint impression of the wonder of it all one must picture, not only the vast number of mail-trains, but the unfailing efficiency with which they are operated. Taking one example, England's Overland Mail to India, a writer in the *World's Work* says:

"There is one continuing miracle in modern days which never receives a moment's other attention or recognition than that which is implied by the inevitable grumble when the miracle does not come off. It fails only once in a million times, an average which it would be hard for the most immaculate Mahatmas to beat. I mean the weekly mail from London to India.

"Punctually at nine o'clock on a Friday night the train swings slowly out of Charing Cross, and two hours later the tonneaus containing the mails have been swung on board the cross-Channel steamer, at Dover. Forty minutes are wasted at Calais; and then, at one in the morning, the 'Continental Express'—perhaps the most famous train in all Europe—begins its long journey.

"This is a train de luxe which sweeps across Europe, disdaining alike the waiting crowds upon the platforms of the most famous cities and the frontier investigations of the custom-houses. It even dares to put Paris on one side; and all unconscious between the sheets you spin through the long levels of France until, an hour before you reach Dijon, you turn up for your *café complet* in the dining-car.

"During luncheon you halt at Aix-les-Bains. Soon after you climb the steep ascent of the mountains, and hard by Modane you thread noisily the dark culvert of the Mont Cenis tunnel. Twenty-four hours after leaving London you are in Turin.

"One after another the little half-known maritime towns of eastern Italy submit themselves for your momentary inspection, and are then wiped away again under the fast wheels of the express.

"All this time, with a paradox characteristic of the country, the 'mail-train' has not carried a single mail-bag. The mails, far more precious than the human passengers, have followed behind the sleeping-cars all the way. Even an outgoing viceroy takes his passage on what is, to all intents and purposes, only a pilot-train.

"Four days on the Red Sea will have inured the worst sailor for the five days more between Aden and India. From Aden to Bombay the mails have been sorted all day long, and at Bombay the English mail comes to land, only to burst rocket-wise over the length and breadth of India. There is no corner in all India that is not searched out and found by this almost perfect service, which, unnoticed and unpraised, is carried out week after week, from year's end to year's end.

"Those who have known, in even the most casual way, of the work that is thus steadily and unostentatiously done by the Indian Mail Service will be the first to admit that it is in no spirit of irony that I have called it a miracle."

AN ARGONAUT OF THE RODS.

"WISH I HAD A LITTLE UNNECESSARY MONEY," HE SAID. "THERE ARE TWO OR THREE DESERVING CHARITIES I'D LIKE TO HAVE BEGIN AT HOME ABOUT NOW."

BY EMMET F. HARTE.

Shorty Invades Mexico in Search of Buried Treasure and Other Forms of Trouble.

THE June sun filtered through the tree-screen and made curious designs in shadow-etching on the warm earth. Shorty and I had just finished the last of a tolerably generous handout received from the house on the hill, and were resting very comfortably—in fact, we hadn't many cares in the world.

The heat shimmered and danced along the rails of a weed-grown track on the other side of the fence, and on our side the bees worked from bloom to bloom of the clover. It was four hours before a train of any kind was due.

Shorty roused himself sufficiently to speak.

"Wish I had a little unnecessary money," he said. "There are two or three deserving charities I'd like to have begin at home about now."

"We might go down in Arkansas and find a pearl like you and your pardner did that time," I said.

"Not for Uncle Osric," said Shorty. "I don't feel worthy. Why, man, if you'd put real work and dredging for pearls alongside, you couldn't tell which was which, and I'm trying to quit even thinking about work."

"I'd like to dig up a buried treasure,

an old iron pot full of money, somewhere," I remarked.

"I've tried that, too," he said, "and the chances for making a killing are so small in proportion to the trouble involved that I class it with raising mushrooms, squabs, *et cetera,* and other get-rich-quick schemes. You wake up some morning and find you're like the hen that tried to hatch out a door-knob, just wasting time."

"Tell about it," I urged.

"Hunting for buried money? Well, I did have quite a fuzzy experience, once, on a treasure-hunt. It come about sort of curious. I was preceding my tracks along down a street in Pittsburgh, one night, thinking of a joke the judge sprung when he give me six hours to get in the clear, when a 'bo got kicked out of a saloon pretty plenty, just as I got even with the door. In fact, he lit on me; I broke his fall, as they say when an aeronaut lands in a tree.

"He was so polite that I felt like I was to blame for being in the way; so I bought, and the minute he lit on the free lunch I knew what ailed him—he was hungry.

"I coaxed him out as the man in the white apron was getting ready to sick the bouncer on him, and chaperoned him down to the river-front, where the lights wasn't so frequent. He was a Frenchman named Auguste something that sounded like a breakfast food, and had no definite plans for keeping himself out of jail as a suspicious character through another day, so I proposed that he ride the top with me toward St. Louey that evening. He agreed so quick that I wondered why he didn't mention it first.

"We rode the Limited out about midnight, and got as far as sixty miles before Auguste was ditched, which was better than I expected. I slid off when I seen he couldn't make it, for it was the same as deserting your grandma to have left him there in the dark, as helpless as a hound pup in a cage of tigers.

"The place was a small but homelike town with two side-tracks, and next day we found that it was the open season for crap-shooting, so we stayed over for a few days, being sportsmen.

"By so doing we fell in with a dice-artist named Adolph Mueller, mostly called 'Dutch' for convenience and because he didn't like the name, who was a hobo, same as us. So we formed a heads-I-win, tails-you-lose combination against the Reubs, which was like taking money out of the baby's bank, the way we accumulated all the available assets of that sportive community.

"The three of us broke the game and departed casually with some eighty dollars, together with several watches, pocket-knives, and revolvers which we had had soaked to us.

"Dutch was a New York product, raised along the wharves, and had been sent out, when about fifteen, with a bunch of others to be adopted by farmers. He stayed adopted about one night, he said, and left, taking with him what loose change he could find, and since then had been mostly transient, with the exception of three years when he lived at a place called Joliet.

"Auguste claimed that Paris was to blame for him, and was a baker by trade—all those foreigners have a trade of some kind which they never work at. He was that guileless that he'd get himself pinched by the village marshal, if he wasn't watched.

"We three got as thick as girl chums in a little while, and one day Gusty showed us a chart he had sewed on the inside of his shirt, which he swore was strictly on the level. It was wrote in French on an ancient piece of hide, and when rearranged into American sense, read somewhat startling, to wit:

"One Captain de Something or other, in the gracious service of his flashlight majesty, Maximilian, when that unfortunate party got smeared out of existence down in Mexico in the sixties, had set down a lot of directions as to the location of some money and other junk which he said was buried in a certain spot near a town called Queretaro, a place Dutch nor me had never heard of before, but which might exist, nevertheless, and which treasure he went on to describe with all the reference to detail of Joe Mulhatton himself.

"It consisted of gold money, jewelry, silver teaspoons, and this, that, and the other, and sounded like our pension had been allowed, with Gusty wiggling his

fingers and rolling his eyes, plumb excited when he read it.

"Then he told how to find it. On a certain big rock was carved a *fleur de lis*—know what that is?"

I hoped I did. It is a thing they weave into table-cloths, lace curtains, glassware, picture frames, etc., for decoration effect; it is very common—in fact, cheap.

"Right," said Shorty; "righter than an ace and a six the first throw. You're smarter than you look.

"But the *fleur de lis* has stood for more than the border around a crazy-quilt in its day. It has stood for bloody, blooming intrigues, and hot doings of all kinds, from swell dames writing notes on high-priced paper with it in the corner, to common sneak-thieves having it burned into their hides with a red-hot iron.

"People have built forts in the streets out of push-carts, chunks of pavement, second-hand furniture, and such, and fought hand to hand with clubs and rocks for as much as fifteen minutes in regards to the *fleur de lis*."

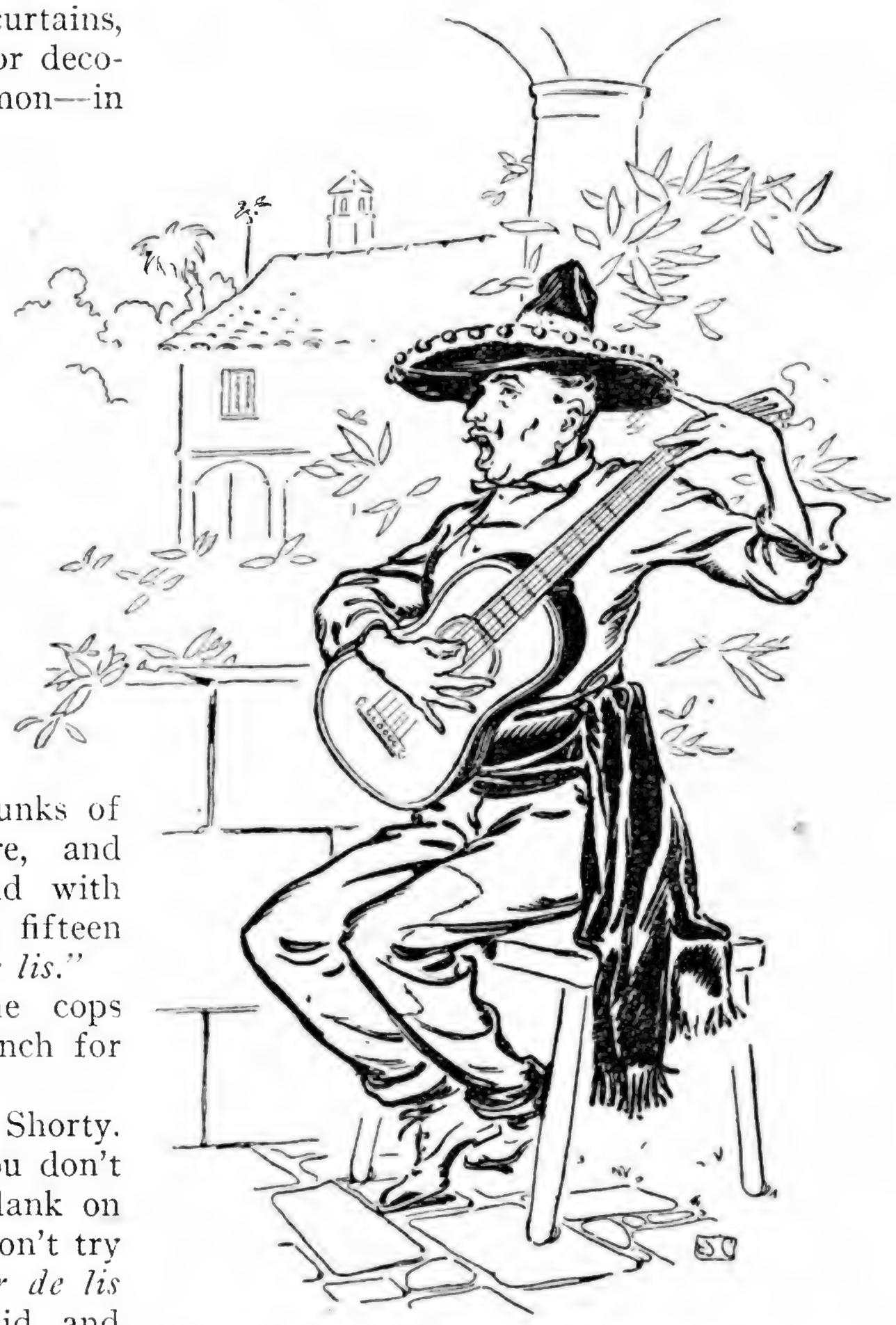
"I should have thought the cops would have run in the whole bunch for obstructing traffic," I said.

"There you go again," said Shorty. "This all happened in a time you don't sabe, being as your mind is a blank on all subjects except eating, so I won't try to explain it to you; but a *fleur de lis* carved on a rock was what it said, and also on another rock adjacent was one carved similar, and you take and draw circles around each one and measure and calculate a few slatefuls, and that was where the loot was.

"When Gusty finished reading the thing, and put his shirt back, we held a cackle-fest. Dutch allowed that his whole life up to that date had been misspent in longing for a trip to Mexico. He was emanating smiles like a bed of smilax, and could be considered already committed to go.

"As for me, I said that the captain reminded me of an uncle of mine who got kicked out of Hades for lying, but in the interest of science, and being of an adventurous disposition, I would go along as a mascot.

"The frog-eater told us the history of the chart. It happened that this captain with the foolish name was a cousin



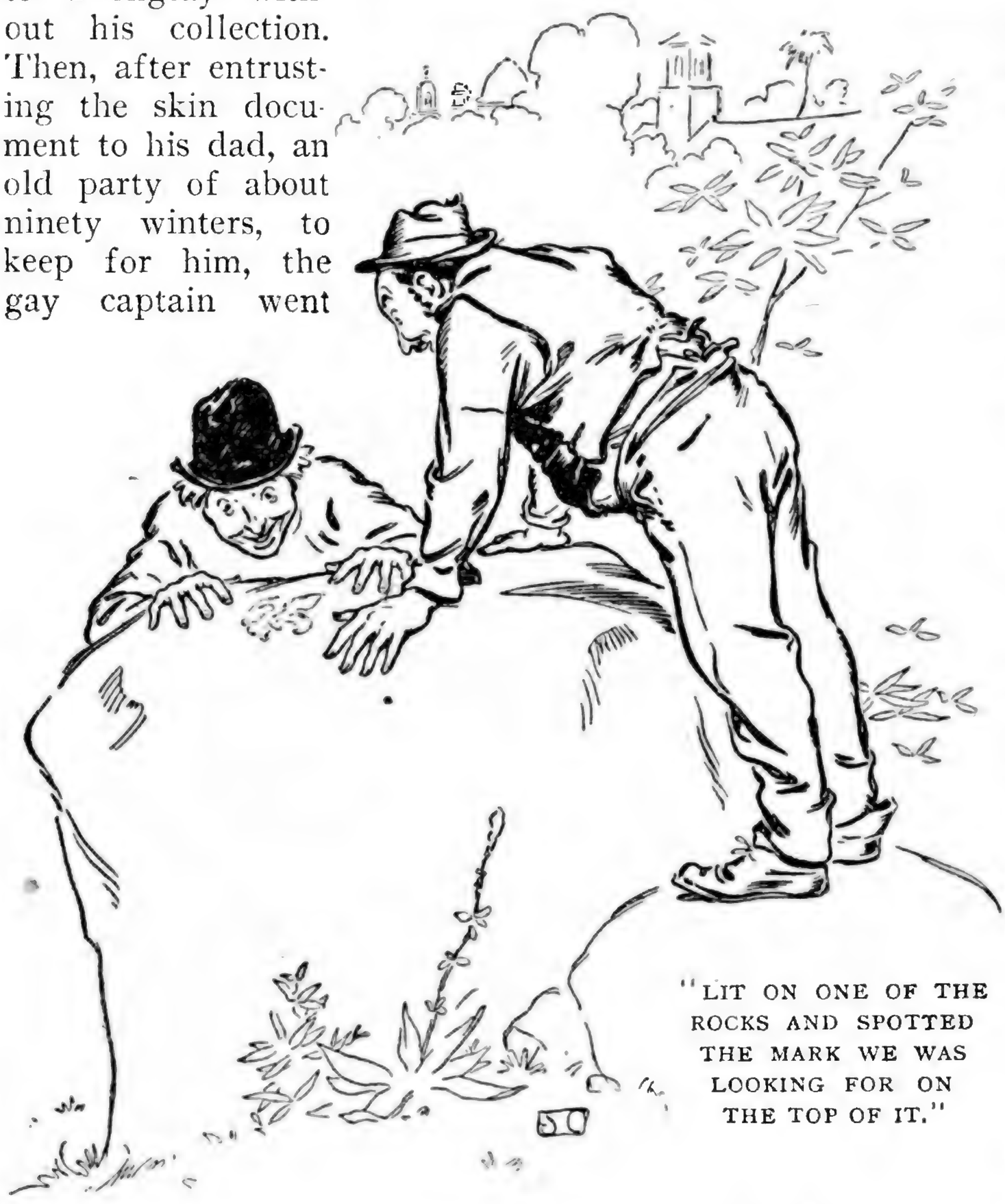
"TOOK SOME OF THE COMPANY MONEY WE HAD SALTED AWAY, AND COME BACK LUGGING A GUITAR WHICH HE TUM-TUMMED LIKE A PROFESSIONAL."

of his, several notches away, and was one of the soldiers sent by Napoleon III to hog Mexico; and, as near as Gusty could guess, cousin had a hobby of collecting things made out of gold and silver—money, shirt-studs, rings, earrings, etc., which he got by pretending to collect taxes, sneak-thieving, porch-climbing, or just plain stick-up.

"In the four or five years he was dissoluting around down in the Greaser country, he gathered up quite a slather of the filthy, which, before leaving in

haste, he planted unbeknowns to anybody, aiming to come back after it later.

"But he was ordered out of the country sort of sudden, and went back to Frongsay without his collection. Then, after entrusting the skin document to his dad, an old party of about ninety winters, to keep for him, the gay captain went out with Napoleon the Would-Be and tried to stop a skittish cannon-ball at Sedan by getting in front of it and waving his sword. It didn't even tarnish the cannon-ball, but it put out the captain's light without a flicker.



"LIT ON ONE OF THE ROCKS AND SPOTTED THE MARK WE WAS LOOKING FOR ON THE TOP OF IT."

"Then the chart become a sort of heirloom in the family, like stock in a copper-mine which may be worth something some day, but you doubt it; and the old gent being Gusty's grandma's uncle or something, it finally gets into his clutches, whereupon he tears out to get the collateral itself—and here he was.

"'Good! *Voila!* And we should all three go, dig her up, and share equalment. *Mong Doo!* Yes!'

"The tale had a whang to it, even if it did sound like the result of a brown pill in the back room of One Lung's laundry, so we decided to go, and commenced to route the expedition right there as we bowled across Illinois in a car-load of four-inch tiling.

"Dutch favored going to New Orleans, and taking chances on getting a passage across the Gulf in a boat the rest of the way, and the frog-eater said that would suit him O. K.; but I, having no experience riding the rods on a boat, put up a kick.

"What if the shacks should come along and catch you down underneath, and chuck you off? You couldn't drill—it's too wet under foot—you couldn't catch her tail as she went by. It would be simply paddle around in a circle a while like a crippled musk-rat and then attach yourself to the south end of a string of bubbles.

"There was too much danger of taking a bath, so I voted for the rods, roofs, and bumpers, the wayside and the tropic forests.

"Of course, as I was furnishing the brains of the expedition, they didn't treat what I said as altogether a joke, and Dutch said he wasn't making any issue of going by water, whereupon the Frenchman swore that he had promised his angel mother that it should be a land journey all the way. So the invasion was continued by wheel and hoof.

"We missed getting pinched at the Mississippi River, crossed the great State of Missouri *via* the Gould system, spent a day and night showing Gusty Kansas City, a hamlet of some distinction, and then loaded ourselves, station order, into a freight headed for Fort Worth, where we arrived four days later.

"We took it easy, prospecting along, trying to learn that Frenchman how to

ride past two stations without getting ditched. We rode blinds where you have to duck off in the dark at every stop, and Gusty got real expert at swinging on after she had begun to light out pretty liberal.

"We rode in quiet empties where you lock yourself in at the end door and sleep contented without being batted around. We put boards under and rode the rods. We boosted the *m'sieu'* up on the tin roof and got him used to cinders.

"We give him a course in battering for pokes like training a 'prussian'; and by the time we got to Laredo, and could look across into the land of pepper, pulque, and procrastination, he was a passable 'bo.

"Well, we crossed the Rio, jimmied around in Nuevo Laredo a while, eating chili and getting used to the new smells, and then we piled on to a National train and moseyed south, *con mucho gusto, muy bien*. It is so easy to ride Mexican trains, it's like frisking candy from a kid.

"The engineer is usually a white man, and sometimes so is the con', the rest are greasers, and when they get after a 'bo they cluck and flutter around and finally climb on before the train starts, grinning as if all you had to do was to say boo at a tramp and scare him to death.

"Then Dutch, Gusty, and Uncle Osric would saunter along and get aboard, leisurely-like, same as getting on the moving sidewalk down at Coney. It was so easy, we got disgusted.

"We got lazy from smoking so many cigarettes, which the natives all do, and eat! Say, they have the craziest things to feed into your face ever."

"I've been up against tamales and chili," I said; "and, from my experience, it is mostly eat, drink, and be sorry concerning the red-hot stuff the Mexicans fix up."

"Don't you go to jumping at no conclusions," said Shorty. "They have lots of nice little things to eat which won't set you afire. For instance: Torteeyas, which is corn-meal pancakes; cammotay, which is sweet 'taters rolled in molasses and roasted; enchy-laddys, which is nuts doctored; and other things I disremember, the names of which is meat, mush-rooms, chop suey, shortcake, apple-dumplings and oyster-stew mixed, and which would make you leave your happy home without even looking back.

"They all chew sugar-cane instead of tobacco, and all firmly believe in the old proverb which says, 'Never do to-day what you can put off till to-morrow,' which is fine business.

"We also found that if you are discovered to be so poverty-struck that you can't stop a bread-wagon, why then you are home-folks, and they'll feed you cheerful and come through with their last makings for a smoke. It is sure pay-dirt for a moocher in Mexico.

"Well, we sagaciated along down the line, learning to jabber *Espanola* and be polite; something which come natural to Gusty, but which Dutch and me, being used to wearing chips on our shoulders, had to learn. We stopped at Monterey and San Luis Something, and numerous little towns along the railroad; and then, one night, we dipped off at the town of Queretaro, and was on the grounds.

"We bunked that night in the first *passeo,* or public loafing-place, we lit on, of which there are always several, and blinked up at the stars, thinking about the clang of the cars along Seventeenth Street, in Denver, or the crowds coming out of the roof-gardens in old York, while we listened to the bug-music in that little old ghost-town we was in, and finally went to pounding our ears feeling foolish and sentimental. like a *señorita* when she hears her flub-dub out under the porch-orito playing on his guitar.

"In the morning we buenas-dias-ed around, got some *almuerzo,* took a stroll out in the suburbs, saw the stone-arch business they run their water-works over—which must have caused a lot of sweat—then, after a few casual inquiries and pretending to be looking at the scenery—which you can do anywhere, even in New Orleans, where there ain't no scenery—we began to prospect around for some landmarks indicating Captain What's-his-name's private dough-cemetery.

"We didn't find any rocks with a *fleur-de-lis* carved on them that day or the next, or for several more. In fact, we piked around for a week, and were getting so well acquainted that we could

call half the population by their first names before we got next that we wasn't any nearer finding what we come after than if we was shooting the can in Oshkosh.

"Then Dutch and me got mad, and set out to find that dough, or wear off about six inches of our legs trying. But we noticed, after a couple of weeks, that the frog-eater was beginning to get cold feet or something. He seemed to be losing interest.

"He acted sort of contented and dreamy-like, as if he was hearing pleasant news by wireless. The guy had something on his little mind, that was a cinch, and it looked radical suspicious of the double-cross to us.

"Then he got to wearing a red sash and a sombrero, and went all duded up like papa at a party. One day the sucker took some of the company money we had salted away, and come back lugging a guitar which he tum-tummed like a professional.

"Then a smile spread over Dutch and me like all outdoors—we was next. The blooming frog-eater was *loco de señorita.*

"We roasted him till we was wore out and groggy, but couldn't get much out of him. He was dotty about some fairy, but wouldn't loosen up who it was, so we followed him, and what do you think? I'll shave you for nothing if he wasn't making signals to the daughter of old Don Tomaso.

"The Don Tomaso was a fat, old, white-haired party of some combustion, who operated two or three *haciendas* in the vicinity, and rested easy in the meantime in a swagger palace in Queretaro. He was well known locally for two things, being an old grouch, and having a daughter who was the superlative of a nectarino, and our Gusty was camping on her trail with all the ardor of a hound-pup waiting at the back door after breakfast.

"He was representing himself to be the Count of Kalamazoo or somebody, and as the old man hadn't set the dogs on him yet he was Big Dick at the *patio,* and chattering his way into love's young dream like a twelve-dollar phonograph.

"When we got wise, Dutch and me made medicine. We hated to believe that the Frenchman would give us the worst of it, but we aimed to get hold of at least two-thirds of that buried treasure before we was ruled off on account of not being blood-kin.

"We held a sitting with Gusty, and, among other things, accused him of being a snitcher. But he mong-dooed and swore by the beard of the Sacred Goat that he wasn't cold-decking us, and promised to reenlist next day and help, but I've always noticed that you can't take promises down to the pawnbrokers and get anything on them.

"He just passes us up, as usual, and paddles off with his guitar, his red sash, and his pleasant smile, and hangs around the Don's place, while we hunt treasure for another week, and find nothing but stone-bruises and muskeet bushes.

"One day, when somewhat down on our luck and lonesome, we sat out in the grass holding disjointed conversation with one of the town permanents, an old settler of some sixty years who still wore his first suit of clothes.

"I happened to take a pencil and draw a *fleur de lis* on the label of an empty bottle, and the greaser, noticing it, I asked him if he knew what it was. *Si, señor,* he knew, and went on to give reminiscences of the sojourn of the frog-eaters in 1865 fit to bore you to death. When Dutch and me had about gone to sleep he sprung the news that he knew where that there sign was carved on one *piedra grande,* and we woke up so sudden and lit on him so strenuous that he was begging for mercy in the name of Sacramento, Colorado Maduro, and Santa Maria, and scared out of about fifty years' growth.

"We got his hair so it would partly lay down after a while, and when he found that his life was to be spared, he come through with the further information that the rock referred to was located on a certain plantation which belonged to old Fizz-fuzz, whose daughter our Gusty was dingey over.

"When we heard that, we unlatched our throttle without waiting for clearing orders and got out on the main line for the good Don's truck-patch. We slowed down in that neighborhood about six o'clock by Dutch's Studebaker watch, made some inquiries of natives in circu-

lation thereabouts, and learned that it was safer to go into that particular plantation by proxy, owing to certain un-God-fearing dogs kept there.

"It was still some hours before dark, so we took a look at the loads of some thirty-eights we happened to have along, waved farewell to the landscape, crossed our fingers, and oozed over into the *hacienda* as timid as two Brooklyn bulls going to church. After percolating around through the canefields for some time and scratching ourselves up pretty frequent crossing patches of muskeet, and having took a rubber at most all of the Don's domain that didn't show too loud symptoms of dogs, we finally lit on one of the rocks just before dusk and spotted the worn and weatherbeaten mark we was looking for on the top of it.

"It was in a thicket, and as it was getting dark and we couldn't find the other one we cut it out, much as we hated to, and hiked back to town the nearest way, as excited as if we had been snake-bit forty miles from an antidote.

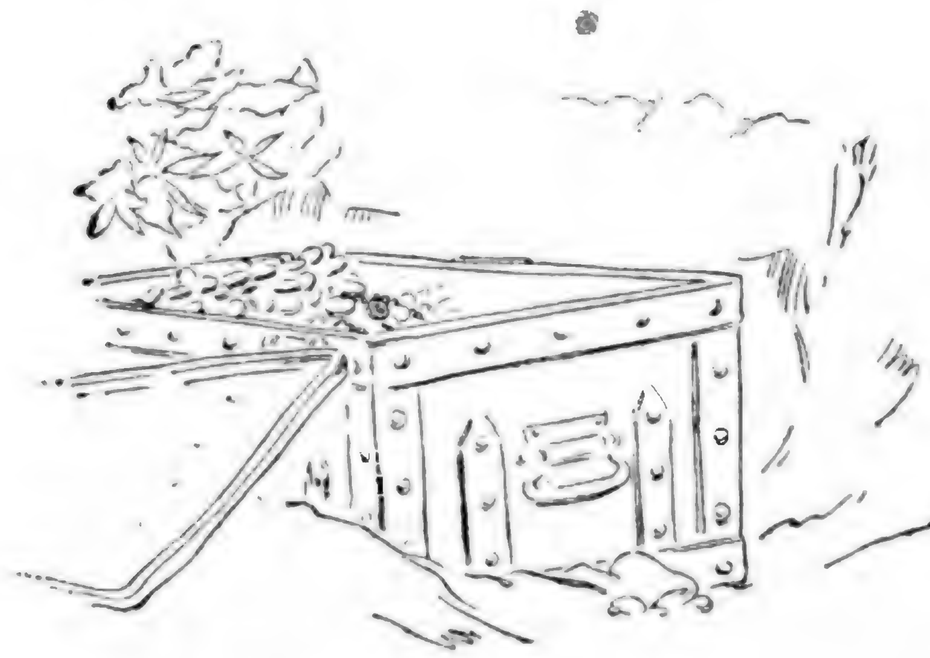
"On the way we had somewhat of an argument in which Dutch took the stand that Gusty was letting us do all the work while he made google eyes, thereby deserving all and more than he would get if he got nothing, and while I was supposed to be hard to convince for the sake of the discussion, I was finally won over to borrowing a shovel and doing the calculating and excavating ourselves. If we found the loot we further decided to throw the frog-eater's share up into a tree and all that stuck on leaves we'd save for him.

"Then, having negotiated said loan, we chased ourselves back, gibbering with enthusiasm, thinking about the different kinds of happiness we was on the verge of buying, and laying plans to purchase several of the United States before long if we guessed right. We camped out in the valley somewheres near the plantation, and about daylight stormed the muskeet, and steered for the treasure. After locating the rock we had found the day before, we indulged in some research and spotted the other one in a little while, as described in the chart.

"Then we squatted down and made calculations for about two hours before settling on where to dig, thereby cutting out a lot of unnecessary manual labor, which was quite cunning in us.

"Dutch nor me neither one being college professors or being even overly up on the multiplication table, it was fierce figuring, but at last we got it all figurationed out to a gnat's eyebrow, and

"WE DANCED ALL THE HEATHEN DANCES OF BARBARISM, AND HELD HANDS AND MADE FUNNY LITTLE NOISES LIKE A CUCKOO-CLOCK."



stepped her off through the bushes to the exact spot, according to Ray's arithmetic. Then we drawed straws to see who was to be hitched up to the shovel first and I lost—that is, I had to dig while Dutch lit a cigarette and looked pleasant.

"Well, we dug and dug turn about and uprooted quite a patch of new ground for the old Don by main strength and awkwardness before we found anything, but it makes no difference how deep it is, if you know it's there you'll dig to it. So we did, and finally uncovered the deceased captain's ill-gotten plunder.

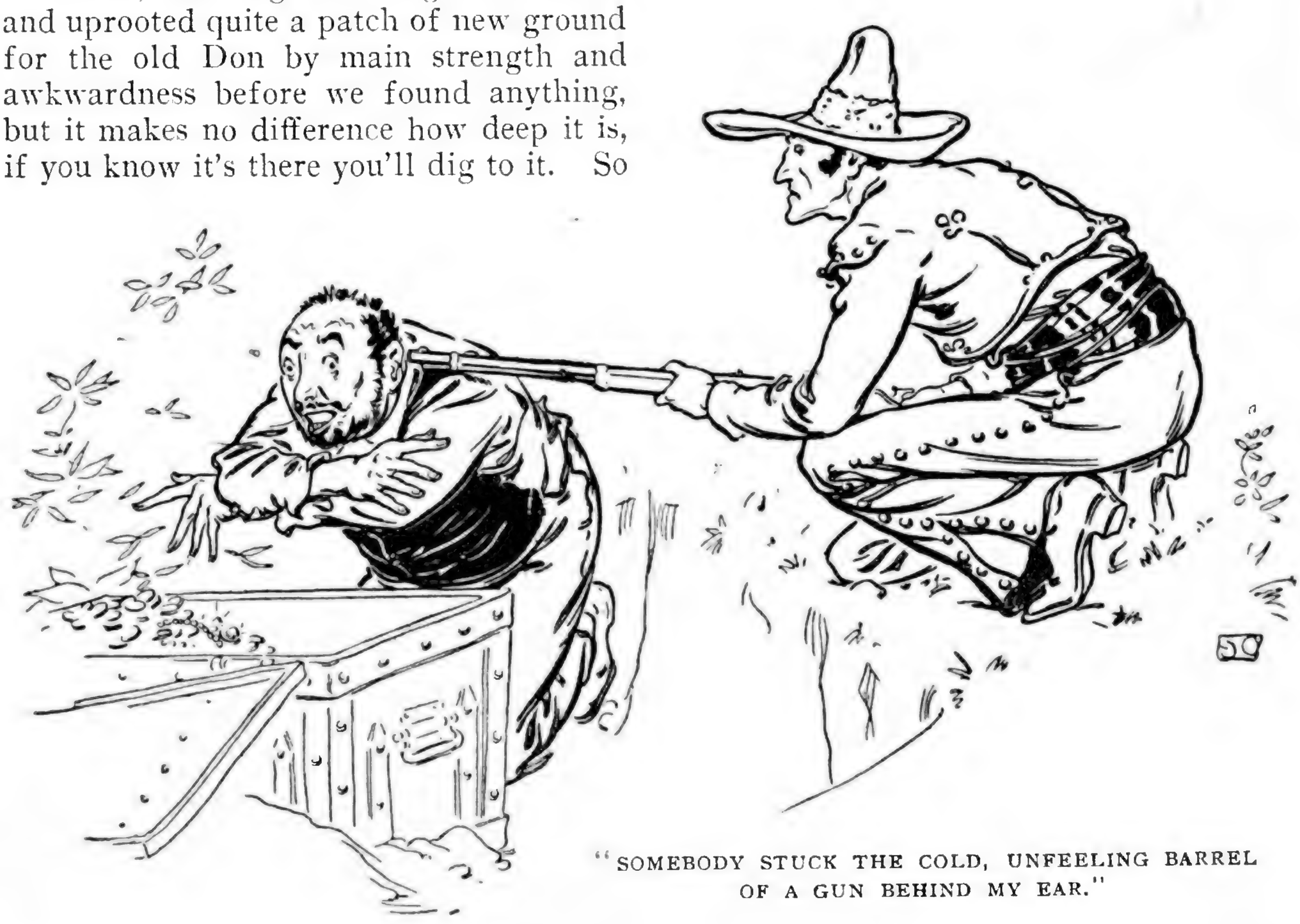
"It was in a hardwood box of some kind which was all strapped around with iron straps and was getting pretty rusty and rotten. We lugged her out and busted her open as anxious as two medical students in a graveyard. Say, mistopher! The scads was there, O. K., and according to specifications.

"Yellow boys, sparklers, rusty-looking old silver things, breastpins, rings, and necklaces fit to make the mouth of Captain Kidd water in his palmiest days. Oh, it was a beautiful dream come true, I'm stating, to see that there box full of bric-à-brac, rusty and tarnished, but real, son, the real, old yellow filthy.

"Just sit down and grabble into it and let the yellow rubbish trickle through your fingers once, and at the same time know you're awake. It's fine commerce, I want you to know; it's swagger, it's the original cheerful thought.

"We was that gleeful we had spasms. We danced the snake, the cancan, the minuet, and all the heathen dances of barbarism, and held hands and made funny little noises like a cuckoo-clock.

"Then we got down and held a gloat that for the simple, boiled-down essence and decoction of the original gloat, made Nero at the burning of Rome look bored and disgusted. Well, when we were just beginning to come to and think about making our getaway with the loot, suddenly somebody stuck the cold, unfeeling barrel of a gun behind my ear and Dutch likewise, and we came out of it to find that we was entertaining company, and the ones that we least yearned to see.



"SOMEBODY STUCK THE COLD, UNFEELING BARREL OF A GUN BEHIND MY EAR."

"There was the old Don and Gusty, and about eighteen peons and six or seven dogs, and they had us surrounded and enough guns pointed at us to start a revolution in the Peace Conference itself. We surmised from the appearance of things that we was about to be engaged in a difficulty, so we got up, shook ourselves, and put four peons out of business before they found out whether we had surrendered or not.

"Then they swarmed and come clam-

oring for us like hornets, and it was up in the balloon for Dutch and your Uncle Osric. It's hard to keep awake when you get slugged in the coco from behind with a fence post or something, and Dutch and me went to sleep sudden and painless, even if we did wake up later on feeling like you do when you've been run over by a train, struck by lightning, and kicked by a mule, all at once.

"Also we woke up in jail, and for three days they either forgot or didn't remember to give us anything to eat. I wouldn't harrow your feelings with what we was up against in that Mexican jail. The jug in that country is the unclean part of the old Spanish Inquisition handed down and soiled in the handling. It is fierce.

"Then one day a greaser poked us in some torteeyas the dogs wouldn't eat and some water, and we knew we was expected to live a day or two longer.

"The worst part of it down there is that when you get in hock, they hold you over a couple or three years before they get around to your trial, and in the meantime you enjoy the insects, dirt, and lack of grub in patience—or you can suit yourself about that.

"Well, in a few days we was agreeably surprised to see the frog-eater brought in somewhat mussed up, and flung into our cage. And there we was, three of a kind. It was real laughable if you held your mouth right. We compared items and finally got the thing straightened out.

"The Frenchman had dropped a hint to the girl about the treasure, just as we thought he would, and the old Don heard about it and finally wormed it out of him about the *fleur de lis* marks. Old Don Tomaso happened to know where the rocks were, so it was easy picking for him to promise Gusty the girl, and they were to go halvers on the loot.

"As for Dutch and me, the way they figured it, what we didn't know wasn't supposed to hurt us. They went out that morning same as us to dig, and when they found us already there they got reenforcements and let us do all the work, which is something I never will get over.

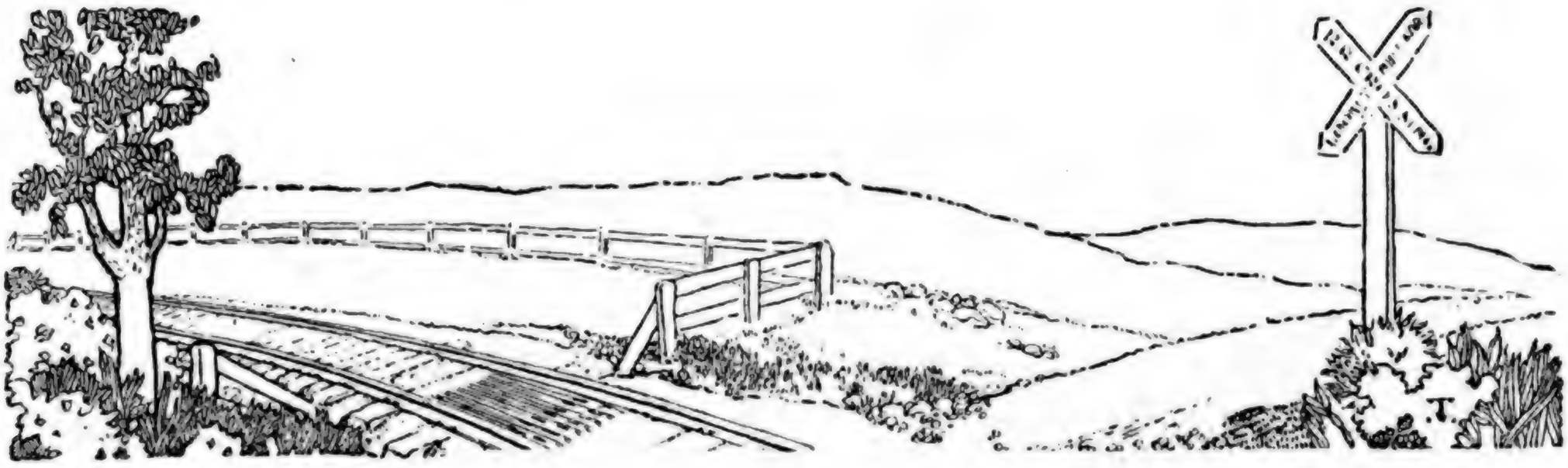
Then, when they had captured the treasure and invoiced it, old Snigglefritz concluded that there wasn't any more than he wanted himself, so he had Gusty pinched for walking on his feet instead of all-fours, or something criminal like that, and there he was, *Sic semper* McGinnis, *Erin slanthagal go bragh!*

"Of course we reviled, profaned, and beefed around some. We dusted off the walls with Gusty, and all three of us had the rabies for two days, during which the greasers who had us locked up were afraid to come near, so we went without our pancakes and water.

"Then we calmed down and laid plans to get out, commit a few murders and arsons, and emigrate. We did. We'd have been there yet in that rat and insect-infested hole waiting for trial, but one day we coaxed the pig-headed monkey into the cell for something when he brought supper, and, after leaving him for dead, locked in, we faded away like good money invested in tontine debentures.

"But we had three months of sour bread and tepid water in the buggery before we got away, so you can draw on your imagination as to how long we lingered when we did get out. We fanned for the North, I say. When we got to El Paso we separated, and I don't know what ever did become of the others.

"Buried treasure! Nit for me, no more," said Shorty.



WHAT THE WIRES SAY.

BY EDITH LIVINGSTON SMITH.

Written for "The Railroad Man's Magazine."

WHO sings of life as I sing?
Who dreams the thoughts I bear,
Hung mid the earth and heaven,
Poised in the vibrant air?
Din of the crowd beneath me,
Peace of the sky above,
Voicing the tongue of power,
Crying of greed or love.

Telling of death and turmoil—
Work or the play of men,
Never a flashing message
Travels beyond my ken.
Only a singing wire
Over the streets am I,
Pulsing with joy of living,
Trembling at sorrow's cry.

Tides of the world surge 'neath me,
Brains of mankind I serve;
Life as a force surrounds me,
Thrilling in every nerve.
Night wraps the city stilly,
Rain of the sky drips down;
I and the blurred lights glisten,
Guarding the sleeping town.

HOW TO BUILD A RAILROAD.

B. F. YOAKUM, head of the Rock Island-Frisco system, has a record for building railroads under difficulties. One day not long ago a friend asked him:

"What's the secret of building railroads?"

"The ability to borrow money to do it with," replied Mr. Yoakum.

"Tell me that secret; it is one that everybody wants to know."

"Friends who trust you—and a lot of them."

"Well, what about those heavy commissions that are supposed to bring in the money?"

"I don't pay big commissions. I go in first myself and take my own money in with me. Then I send word to my friends, 'It's great. Come on in.'"

BENJAMIN F. YOAKUM.

THE HEAD OF THE LARGEST SINGLE RAILROAD SYSTEM IN THE COUNTRY.

The Men at the Top.

No. 7.—YOAKUM, FIGHTER AND RAILROAD BUILDER.

BY CARLYLE ELLIS.

A Man with a Record for Saving Old Roads and Building New Ones.

TEN years ago the St. Louis and San Francisco Railroad had a mileage of fourteen hundred miles. As a system, it was of little importance. There came a man from Texas to take the presidency. To-day the Rock Island-Frisco lines have a mileage of over twenty thousand miles. It is the largest single railroad system in the country, and one of the most important links in the chain binding the growing Southwest to the busy, prosperous Middle West. The man from Texas who has wrought this work is Benjamin F. Yoakum.

In the past eight years, Yoakum has constructed more miles of railroad than any man in the country, and he has to-day under construction more new mileage

than any other system—eleven hundred and fifty miles in Louisiana and Texas, the Gould system being his nearest competitor, with eight hundred miles.

Down in Texas, where Yoakum was born and raised, they love to tell stories about him, and particularly that story of how he got his start in life by selling fruit-trees from his father's nursery. When Yoakum was seventeen years old there was about as much chance of selling fruit-trees in Texas as there was of the proverbial camel getting through the needle's eye. But Yoakum sold them, and sold them to farmers who were nearly sick of the country. It is recited by the old-timers of northeastern Texas, many of whom still show with pride their purchases from the young tree-pedler, that, somehow, he managed to get the other fellow to do all the talking, but he sold the trees.

SELLING FRUIT-TREES HIS FIRST BUSINESS.

His system seemed to be to let the customer raise objections until he had exhausted his resistance to buying. This, it may be noted here, is one of the most characteristic traits of Yoakum, the empire-maker of to-day.

But peach-trees palled on the tall, active-brained country boy after a while. He decided that he was ready for something better, and he got it.

H. M. Hoxie, then prominent in the International and Great Northern, Jay Gould's Texas railroad, took a fancy to the hustling young seller of trees, and picked him to talk up the road's agricultural exhibit at the Nashville Exhibition. He went, and of course made a success of it.

When he returned to Texas, Hoxie put him on the road as traveling passenger-agent to circulate among the farmers and get acquainted. Yoakum circulated, absorbed the theories and practise of railroading with avidity, and, incidentally, turned in a great deal of new business to his road. Then came the Atlanta Exhibition, and this time young Yoakum was sent in charge of the large agricultural exhibit made by the entire Gould system.

His intimate knowledge of Western farm conditions again made him valuable and successful, but his apprenticeship was not yet over, and when the exhibition closed he went to San Antonio as local freight-agent. Here there was more to learn, but the hungry-minded young railroad man was soon looking for a new field to conquer. He was not long in finding it.

There was in San Antonio at that time a genius named Uriah Lott, and a hundred or more miles to the south, in the arid region of the Gulf Coast country, there were two or three wealthy ranch-owners who wanted railroad connection with the outside world. It fell to the lot of Lott to build that road, and thereby to become famous. It is a matter of tradition in Texas that Uriah Lott started construction on the San Antonio and Aransas Pass Railroad with only fifteen dollars in his possession.

BUILDING A RAILROAD ON HOPE AND NERVE.

The building of the "Sap," as the line is nicknamed, was a process of peculiar and characteristic intricacy. Lott could get only the most limited backing, for the line he proposed was to run through an almost uninhabited and, as it was then thought, uninhabitable wilderness. But he started, nevertheless, practically on a shoe-string and with only the roughest surveys. One mile of track was finally laid. It consisted of several sizes, shapes, and weights of rails, mostly second-hand and picked up in job lots.

Then Lott bought an old Southern Pacific engine, long before consigned to the junk-yard, doctored and patched and cleaned it, till he got it so it would move under its own steam, somehow, and his line was in operation.

In those days it was customary to give much more encouragement to budding railroad enterprises than is now thought necessary, and a State law provided for land grants to the roads for every mile built—after the first five miles. Uriah Lott had nothing like five miles of road built; but he managed to get a small land grant,

on the outskirts of the town, which then had a population of about twenty-five thousand.

The land secured, he immediately divided it up into lots and started a real-estate boom. The land sold pretty freely, and Lott added another mile or so to his road and got another grant. The operation was repeated and kept up till the line had to leave the city and strike for the open country, where town lots were a drug on the market.

By this time the San Antonio and Aransas Pass Railroad was six or seven miles long and quite without funds. Entirely undiscouraged, its resourceful promoter made a small issue of bonds, and sold them in San Antonio for what they would bring. This wasn't very much, but it added a few miles to the railroad and considerable more unsalable land, by which time another bond issue appeared and the operation was repeated.

At the time of our story, the fall of 1885, the line was just forty-seven miles long, reaching out into the wilderness less than a third of the way to its destination. The state of its finances can better be imagined than described.

This was the time when Uriah Lott discovered the hustling young freight-agent over at the other depot. He liked hustling young men who didn't expect large salaries, so, that fall, young Yoakum became treasurer of the "Sap" and began his labors as a railroad manager.

For it wasn't long before B. F. Yoakum was the company—at least, so far as operation was concerned. Seldom, probably, in the history of American railroads has there been a more hopeless tangle for a green young man not yet thirty years old to tackle.

But Yoakum jumped into it with boundless enthusiasm and astonishing energy, and quickly rose to be secretary and general manager. He had found his field, and he developed with remarkable rapidity.

A vivid picture of the Yoakum of those early "Sap" days is shown in an incident told to the writer recently by Anthony Hillan, a San Antonio newspaper man. In the late eighties, Mr. Hillan was foreman of the truckmen at the "Sap's" San Antonio freight depot. A severe strain of the back while at work brought him into contact with Manager Yoakum under characteristic circumstances. This is how Mr. Hillan told the story, which has never before appeared in print:

HIS WORD BETTER THAN COMPANY SCRIP.

"When it happened I was foreman of the 'rustlers' at fifty dollars a month, and at that the poor old company was three months behind with my pay. I reckon a good many of the others were worse off than I was, though, for there was simply no money to be had, and the company had issued scrip till it was a joke—that no one could see.

"I saw that there was nothing for it but to raise some money and lay off till I got better, so I went to the master mechanic who paid the men off when there happened to be any money. Of course, he hadn't any; but he gave me my slip.

"'The only thing to do is to go right to Mr. Yoakum,' he said.

"'Hello, Hillan, what's up?' said Mr. Yoakum, who always knew every one, when I came limping in.

"I explained the back, and said I was afraid I'd need some money.

"'Well, now, that's bad,' said Mr. Yoakum kindly, and, turning to the treasurer, he asked if he couldn't manage to cash the order.

"'Can't possibly,' said the treasurer.

"'Oh, we must have *some* money,' said the G. M. 'Look in the safe and see what you can dig up.'

"So there was a general hunt, but they didn't get together ten dollars.

"'Never mind, Hillan, I'll get it. Come on,' said Mr. Yoakum cheerfully.

"So he put some of that doggoned scrip in his pocket, and we started out together to make the rounds of the business houses. We must have gone to twenty

places, but we always got a cold turn-down. But he was just as cheerful as ever, and he never seemed to think of giving up. That was like him, too.

"Finally we came to a man whom the G. M. knew particularly well.

"'George,' said the G. M., 'I must have one hundred and fifty dollars and—'

"'And you want to give me "Sap" scrip for it? I know. Well, I won't do it, B. F., not even for you. I draw the line at that stuff. But I'll tell you what I will do. I'll lend you the one hundred and fifty on your personal note.'

"'Great,' said the big man, as happy as a kid. 'George, you're my friend. And say, George, while you're at it, suppose you make that note for two hundred.'

"He got the money, handed me my one hundred and fifty dollars, pocketed his fifty, and left me with a hearty 'Good luck, Hillan.' I've often thought he probably needed that money as much as I did."

Then, there is another story characteristic of Yoakum that ought to go in here, as illustrative of his way of doing things. Yoakum, going west from New York, where he had been trying to raise money for the "Sap," met Lott in Chicago.

NO ONE KNOWS JUST HOW HE DID IT.

"You'd better get back on your job, Yoakum," said Lott. "The men have got tired of working for nothing, and have struck. We're all tied up, and I'm off for Europe." Yoakum went back and found every wheel still. In the office of the company no pens were scratching, and a doleful crowd met him, including the road's attorneys. "We're glad to see you are back," they said, "and we have everything prepared. We did not know who you wanted for receiver, so we have drawn up two petitions for a receiver. Which will you have?"

"Neither," snapped out Yoakum; "there's going to be no receiver. The road's going to run."

"But—we've no money—"

"Now, that's my job. You get back to your desks and appear busy, even if you are not."

Yoakum started for the bank. When he came to this part of the story, sitting in his library, in New York, there was a funny twinkle in his eye when he said: "You should have seen me zigzag down that street.

"There were more railroad men in town than I thought the company employed. They had received no wages for three months, and I couldn't blame them for kicking, but I think I shook hands with every one of them."

When he reached the bank, the president, who was ambitious to be the road's receiver, came forward to meet him dolefully.

"This is very sad news, very sad news, Mr. Yoakum."

"Why, yes, it is rather rough," said Yoakum. "They've got some receivership papers drawn up down there at the office."

"Yes, yes, I believe so," said the president. "Of course, I am sorry to have to do it, but I am quite willing to serve, if it will be any favor to you."

"Well, you don't get the job. It isn't a receiver that our road needs; it's *money*—and I've come here to get it."

"But, my dear man, your road can't borrow any money here. Your credit exhausted, a strike on because the labor has not been paid, a receivership pending! What are you thinking of?"

"I'm thinking of the forty thousand dollars I've got to have before night. I want the bank to let me have it."

"No."

"Now, see here. Here's a proposition. If I raise twenty thousand dollars in this town before night and deposit it with you, will you discount another twenty thousand dollars for us?"

"There's no harm in making that promise, because there isn't a man, woman, or child who would advance a penny on the security your road has to offer."

"Then you promise?"

"Certainly."

"All right. I thought you'd fall for that. I was thinking coming down the street that when I asked you for forty thousand dollars you might throw me out of the bank. But I figured that I could get half of it out of you, and so I have."

"Not yet."

"But I've got your promise," and with that Yoakum departed.

What arts of persuasion he used on his fellow townsmen, what pledging of his own name, what appeals to friendship, may not be known; but before the close of banking hours Yoakum was back with twenty thousand dollars in checks of all denominations and demanded and obtained the promised twenty thousand dollars additional.

But this was by no means the end of the trouble. The town was full of striking railroad men, some of whom had walked in from their sections two or three days' jaunt away. How to get them back, the wheels turning, the road running, was a big problem, especially in view of the fact that only one month's wages could be paid where three or four were due.

Yoakum got together some of his most reliable men—engineers, brakemen, and section men—and told them to round up the entire outfit that evening, and he'd have a few words to say to them. Yoakum is not a speechmaker, but somebody should have been on hand that night to report a typical Texan speech. He exhorted them and cajoled them to get back to their work, and was met with howls of derision.

"We go back when we get the money," yelled one man amid shouts of approval, "and not wan minute before."

"All right," shouted Yoakum. "Do as you please. Jack Bowles," turning to an engineer, "will you run your engine at six o'clock to-morrow morning?"

"I will."

"Mike Flynn, will you fire for him?"

"Yes, sorr."

"Johnson, I can depend on you. Will you act as conductor?"

"All right, Mr. Yoakum."

"I want that train to start to-morrow morning at six o'clock sharp. And run fast. You won't have any trouble doing that because there'll be only one car—the pay-car!"

Then the roof came off.

"Hold on a minute, you men!" shouted Yoakum. "I said that that train was to run at six sharp and run fast, and I mean it. It will stop only to pay men on their stations; and, as you've all said you'll not be there, we'll save a lot of money by making quick time."

There was a rush for the doors.

"Now, just one minute more. That car will have one month's pay aboard for all who are on their jobs. Most of you have got two months more coming to you. It's up to you to run the road, and up to me to raise the money.

"You do your best on your end, and I'll do my best on mine. If you and I are going to work together, we've all got to realize one thing—that we've got a lot of hard work before us and mighty little money.

"Now, get busy. Some of you have got a long walk between now and six o'clock to-morrow."

On his desk in his library Mr. Yoakum has a silver easel. On it is engraved a testimonial of affection and esteem from these very men. Mike Flynn's name is there and all the rest, and Yoakum finds more pleasure in looking at it than at the many art treasures that adorn his home.

But even Yoakum could not save the company. He built it into the semblance of a real road, but he could not lift the burden of debt that overwhelmed it, and, after a struggle of five years, it went into the hands of a receiver—but the receiver was B. F. Yoakum. It had fought for life, and it went to the wall with Yoakum, not yet thirty-four years old, as joint receiver.

There followed another fight, ending in charges being brought and indictments

being obtained at Yoakum's instigation, and the receivership was placed solely in his hands. Two years later the road was on its feet and the receivership discharged.

In July, 1896, came Mr. Yoakum's most important advancement, for it started him on the road to his present place of supreme power. He became vice-president of the St. Louis and San Francisco, with headquarters in St. Louis. The road had less than fourteen hundred miles of track, and it had just been purchased at a receiver's sale. Yoakum's job was to build it up, and build it up he did.

His method consisted chiefly in absorbing the small feeding lines, thus bringing in larger and larger areas of contributing territory—then developing that territory. How he succeeded can best be judged by the fact that in ten years the trackage of the Frisco had increased to nearly five thousand miles.

In 1900 Mr. Yoakum became president of the Frisco, but he went right on with his task of development and enlargement. He acquired the Fort Scott, Memphis and Gulf, the St. Louis, Memphis and Southwestern, the Chicago and Eastern Illinois, the Evansville and Terre Haute, and a dozen other roads to form a great connecting system.

Then came the financial trouble of the Rock Island system, the most active competitor of the Frisco, and the amalgamation of the two systems. It is said that the financial interests that had been supporting Rock Island refused further help unless Mr. Yoakum was put in charge of the road.

At any rate, shortly thereafter Mr. Yoakum was made the operating head of the two systems, and set about the gigantic task of dovetailing them. The result is a single system of cooperating lines, comprising more than twenty thousand miles of track, the greatest in the world, with this titanic Westerner as its absolute master.

OPENING A NEW FARMING EMPIRE.

With the completion of this great consolidation, another period in the life of Yoakum began. From railroad manager he became railroad builder, and soon they were calling him "empire-maker." For the far-sighted Yoakum found an undeveloped region, rich chiefly in possibilities, and he set about making it a great new tributary to the Rock Island-Frisco system. This was the southern part of his native State of Texas, which has recently attracted widespread attention and almost a stampede of settlers. This region is semiarid and semitropical, useful for nothing but a little stock raising until, five years ago, artesian water was found to underlie the entire belt from the Rio Grande northeast to the Nueces River and beyond.

At a bound the region became a possible great winter vegetable garden. Heavy frosts there are practically unknown, and the deep alluvial soil is of astonishing richness. A railroad was needed, but who would build a railroad through an uninhabited wilderness?

There was one man who saw far enough ahead and had faith enough in the future of Texas to do it. He was B. F. Yoakum. And so the St. Louis, Brownsville and Mexico Railroad was built.

It runs along the Gulf Coast, terminating at Brownsville, on the Rio Grande, and connects with Houston on the north. The faith of Yoakum has been amply justified. Towns of two thousand people have sprung into existence, where two years ago there was nothing but mesquit and cactus. Other towns but four or five months old have several hundred prosperous inhabitants, large areas are being cleared and put under cultivation, and highly profitable crops are being marketed.

But Mr. Yoakum was not the man to work in one direction only. The Gulf Coast line soon developed as merely one arm of a system designed to unite with peculiar effectiveness the whole southern territory.

Simultaneously, with the beginning of construction on the Gulf Coast, a line to be called the Trinity and Brazos Valley was started south from Dallas and Fort Worth to unite and run through an untapped agricultural territory to Houston. Connections were secured thence south to Galveston, giving the great wheat belt from the Great Lakes to the Rockies a direct short-haul to tide-water.

Another line was started east from Houston through new territory to connect with New Orleans and the Rock Island-Frisco's broad extensions into the old South. This line is the Beaumont, Sour Lake and Western.

Houston, being the center of this web of lines, is to receive important improvements. A connecting belt line around the city will feed all the lines from a central five-million-dollar passenger depot and great terminal yards along Buffalo Bayou, the tide waterway which the Federal government is dredging for a deep-water harbor at Houston. Meanwhile, plans have been completed for large terminals with adequate dockage at Galveston also.

To the south, the present terminus of the line is Brownsville; but a plan to extend this line down to the City of Mexico has recently been announced, and a further extension to unite the two Americas by rail is believed to be contemplated by this man of splendid daring.

A STRONG MAN WHO HAS NO ENEMIES.

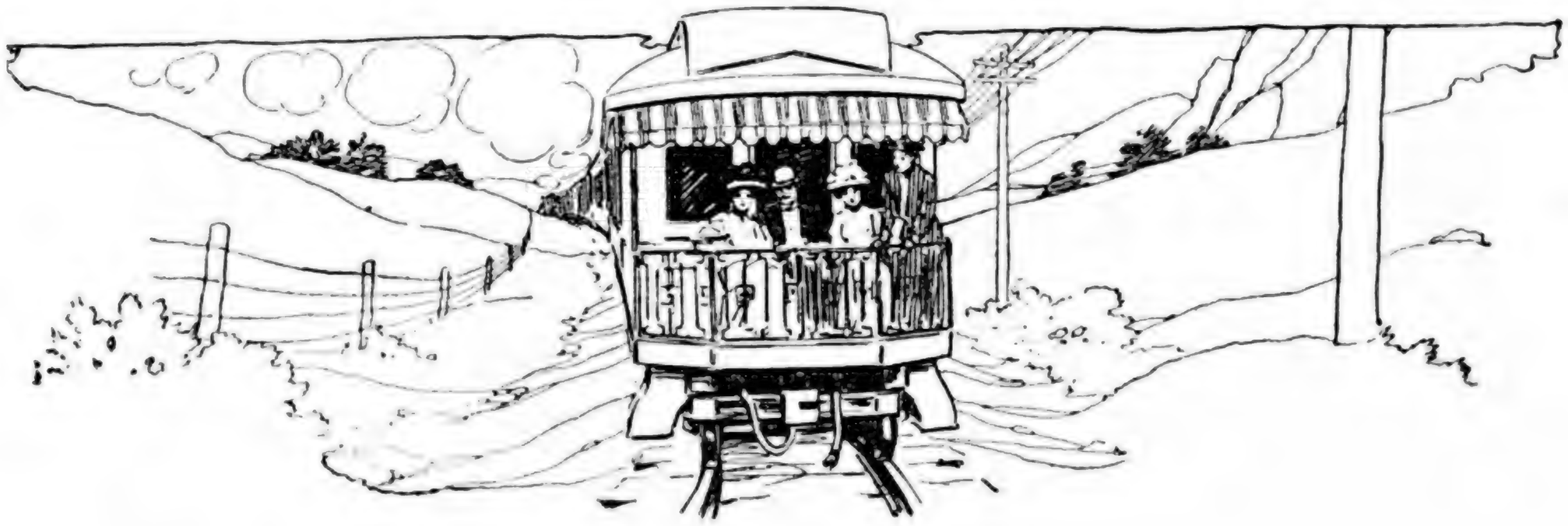
It is remarkable of B. F. Yoakum that he is practically without enemies. It seems as if every man who ever worked for or with him and played fair swears by him. It is related of him that, with the exception of a strike in Galveston—in the precipitation of which he had no share—Mr. Yoakum has never had a quarrel with a labor organization. If a difference arose, he said, "Men, will you leave it to me?" And it was left to him in perfect confidence. You may travel the length and breadth of Texas—both of which are considerable—and not hear an adverse criticism of Yoakum.

The secret of this seems to lie, not only in his squareness, but in his genuine democracy. When he makes his annual pilgrimage to San Antonio at fair-time the old-timers find him the same Frank Yoakum as he was twenty years ago—cordial, unpretentious, and with a certain simple genuineness that only a really big man is capable of.

Another characteristic of Mr. Yoakum is his success in picking men. On the "Sap," when he first went to the road, was a young telegraph operator and assistant despatcher whom Mr. Yoakum liked, named J. S. Davidson. This same Davidson is now president of the Frisco system. A like history is attached to nearly every one of Mr. Yoakum's chief aides.

When Mr. Yoakum goes abroad, as he may do at most unexpected times, he is advised by cable of all important news. Seldom, however, does he cable back, and he delights to recite what each of his men will do in this and that important emergency.

He seems to know exactly what division of responsibility will be made and what will be accomplished, to the minutest detail. If it could be studied at close range, B. F. Yoakum's personal organization would probably be found to be the most perfect in the world.



Roll-Call of Veterans.

A Few of the Railroad Men Who Have Passed Many Mile-Stones on Life's Single-Track Right of Way, on Which There Is No Back-Loading.

AIR-BRAKES HIS HOBBY.

Instructor Spencer of the Jersey Central, the Man Who Built Their First Instruction-Plant.

WHEN W. H. Spencer, general air-brake instructor on the Central of New Jersey, died recently, there was mourning at every station on the system. No man in the service was better known and liked.

Mr. Spencer was a graduate of Lafayette College. He entered the employ of the Central twenty-seven years ago, serving as a fireman from 1880 to 1888, when he was promoted to a run out of Mauch Chunk, Pennsylvania, on the right-hand side. The air-brake attracted his attention, and he devoted considerable study to its mechanism and operation.

In 1894 he was assigned to the Westinghouse instruction-car as assistant to the instructors, and two years later he constructed the first air-brake instruction-plant of the company, with the help of an associate and in his own time. The plant was afterward put in the first instruction-car, and was in use until the company decided to build a new instruction-car a short time ago.

In 1902, Mr. Spencer left the Central and went South, but returned a year later to the old company and stayed with them to the time of his death, in various capacities, being appointed to his last position on the 1st of February, 1905.

STILL GOING AT SEVENTY.

Brockway, of the Boston and Maine, Has Been on the Job for More than a Generation.

VIRGIL C. BROCKWAY, although nearly seventy years of age, is still an active railroad man on the Boston and Maine at Newbury, New Hampshire. His first venture into the field of railroad service was as a shop-worker, but he remained in that branch only a few months before he was appointed station-agent at Newbury by the Concord and Claremont.

In the thirty-five years since that time there have been many changes in the management and operation of the road, but the one constant feature has been the station-agent at Newbury. A regrettable accident, a year ago, resulted in his being partly disabled, a trunk falling on his right arm and paralyzing it.

Although he has never severed his connection with the railroad, Mr. Brockway has found time to be active in other fields, notably local politics. For many years he was postmaster at Milford, both under the Cleveland and Republican administrations.

OLDEST STATION-AGENT.

Stickney of the St. Paul, after Whom His Road Named a Town in South Dakota.

WHEN the Chicago, Milwaukee and St. Paul had but twenty miles of completed track, fifty-seven years ago, there entered into its employ one John B. Stickney, and during the years that have elapsed since then the company has had no more faithful servant. Mr. Stickney is said to be the oldest station-agent in the country, and his family is said to be one of the oldest in England.

His ancestors founded the town of Stickney, in England, about the time of the Norman Conquest, while his American forebears were of Colonial times, and took an active part in the Revolution.

Mr. Stickney was born eighty years ago, at Lancaster, Vermont. In 1851, having moved westward with his newly wedded wife and settled at the small village of Milwaukee, Wisconsin, he joined the forces of the new road, beginning as a clerk, then working as a conductor, and afterward becoming an

agent. When the Mazomanie, Wisconsin, station was established, in 1866, he was made agent there, and has held the post ever since.

Mr. Stickney has been a very successful raiser of horses, and is said to have bred some of the finest horses ever reared in the Northwest. He has been very prominent in politics, and it is stated of him that he was one of the founders of the Republican party. He accompanied President Roosevelt on his first campaign through the Northwest.

An unusual mark of the esteem in which he is held by his employers was shown when, in 1905, the company named the town of Stickney, South Dakota, after their oldest station-agent.

LACKAWANNA PENSIONER.

Conductor George Has Earned the Right to Leave the Road of Anthracite.

AMONG the recent additions to the pension-roll of the Lackawanna is the name of Conductor Jerry R. George. For forty-two years Mr. George has spent his life in the service of the Lackawanna.

He began in May, 1866, as a wood-passer between Phillipsburg and Hackettstown. Soon he was promoted to the position of brakeman under Conductor Marshall Sayre, who, by the way, was one of the first to be placed on the pension-roll when the company instituted the system several years ago.

Mr. George was made a second-class conductor in 1868, and in 1872 was made assistant yardmaster at Bergen Junction. A year later he became an extra conductor in the regular passenger service.

In 1876 he was given charge of the Dover express, and he remained the chief of this train until his retirement on the 1st of March, this year. For twenty-seven years the engineer in charge of Mr. George's locomotive on this train was George H. Stitcher, also recently retired.

JERSEY CENTRAL PIONEER.

One of the Men Who Has Seen the Slow Growth of a Great Railroad.

ON the 1st of April, another of the real old-timers severed his connection with active railroading by retiring on a pension. General Agent Joseph A. Haynes, of the Jersey Central, entered the employ of that corporation in 1855.

At that time the system consisted of one single-track line. The first position occupied by Mr. Haynes was that of flagman and brakeman between Elizabethport, Hampton Junction, and Easton, Pennsylvania. In 1858 he was made a freight conductor, with a run between the two terminals of the road, Jersey City and Easton.

He was one of the active railroaders of the Civil War, running with many trainloads of soldiers to and from Southern points. He received his first regular passenger run as conductor in 1865. It was in 1871 that Mr. Haynes was first appointed to the grade that he retired from when he was made general agent at Elizabeth, New Jersey.

Six years later he was transferred to Plainfield, and he held that position until his retirement. Thus for fifty-three years he has been in the employ of the railroad which he has watched grow from insignificance to national importance, and it is said that in that time he has worked under thirteen different superintendents.

He was one of the organizers of the Veteran Employees' Association of the New Jersey Central, and has been on the executive board since its formation.

BENNETT'S BAD LUCK.

Veteran Conductor in Fatal Accident on a Strange Road After Fifty-Four Years Railroading.

ONCE more the irony of fate exhibited itself in a striking manner when, after working on a railroad on and off for nearly sixty years, Conductor Alfred G. Bennett, of the Boston and Albany, received fatal injuries on a railroad with which he has never been associated in any capacity.

Mr. Bennett became connected with railroad work in 1852, when he entered the locomotive-building shops of Blanchard & Kimball, at Springfield, Massachusetts. Later, he entered the locomotive-repairing shops of the Hartford, Providence and Fishkill Railroad.

After holding this place for some time, he severed his connection with railroading for a few years. In 1873, however, he took advantage of an opening on the Athol road, just completed, now a branch of the Boston and Albany, to get back to railroading.

This opening was the run as conductor on the first train from Springfield to Athol, which he held until the time of his death. He never received a personal injury on any railroad until the one on the Vermont Central which was fatal to him, although he had many hairbreadth escapes.

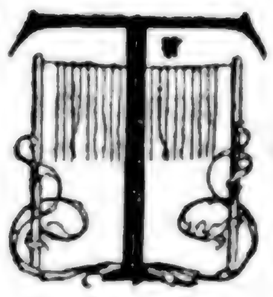
JUNO AT THE WAY-STATION.

BY J. AUBREY TYSON.

The Son of the Railroad Magnate Is Put in Charge at Sparta and Things Begin to Happen.

CHAPTER I.

The Old Man's Foot.



"THERE'S no use arguing, Jane. You've had your way with Lindy. I'm going to have my way with Jim."

Joseph Lacy had just taken his overcoat from the hands of the butler and was in the act of putting it on.

If he had spoken in this tone in any other place than in his own home the futility of further argument would have been apparent to every one, but the tall, stately, self-possessed, and handsome woman of fifty who now confronted him was Mrs. Lacy.

In many respects Mrs. Lacy was a pampered wife. The hard-headed, close-fisted old man of business was proud of his wife and daughter, and though he honestly despised their social aspirations, he had long since accustomed himself to yield promptly to the two most potent arguments he had ever known.

Thus, when his wife would say: "It will cost a great deal, Joe, but our position demands that we—" he would shake his hard old head sagely, chuckle a bit, and draw out his check-book. When Belinda, whose very presence was wont to drive the steely glint out of his eyes, would murmur, with pouting lips, "But, daddy, the other girls—" he would interrupt with "All right, daughter, when the other girls have bankrupt fathers to be proud of, you'll have to have one, too, I suppose. Here's your check—last one you're going to get from me.

"I mean it this time, Lindy. If I have anything left, now that you've got through with me, the Board of Foreign Missions will have it all. There's no use frittering away good money on any missions round home."

Every one, except Mrs. Lacy, knew that when "Old Joe" put his foot down on a subject all the king's horses and all the king's men would fail in an attempt to raise it until life was quite extinct in the subject on which it was planted. In the course of the last thirty years she had seen that foot come down hard on several occasions, and each time it had resisted all her efforts to raise it.

But Mrs. Lacy was an exceptionally sanguine woman. She was resolved that what she had failed to do in the past, she would do in the future, merely as a matter of principle.

And now old Joe's foot had come down on Jim!

The butler, having given the overcoat to Mr. Lacy, saw that the household barometer was falling rapidly. As he moved discreetly toward the door, a significant glance from Mrs. Lacy accelerated his pace. Leaving the room, he closed the door behind him.

Mrs. Lacy braced herself for the struggle. As a glance of encouragement flashed toward her from the eyes of her daughter she crossed her arms over the high back of a chair.

"I shall argue, Joe," she said quietly.

Lacy smiled, and Lacy's smile was peculiar to himself. There was humor in it, some sympathy, and a great deal of tantalizing mockery. It lighted his face in much the same manner as the sun lights an iceberg. The rays that gleam on the crest and the sides of an iceberg are pleasing enough in their way, but they are not suggestive of spring flowers.

"Five minutes, Jane—only five minutes. I am due at the office at ten."

"Joe Lacy, you are said to be worth fifty million dollars," said Mrs. Lacy.

"Thereabouts—thereabouts, my dear," he replied composedly.

"And Jim is your only son?"

Lacy nodded. "Only boy I've got, Jane."

"And yet you treat him as if he was nothing more than a poor relation."

Lacy's brows raised slightly.

"By which you wish me to understand that I treat him badly?"

The blood rushed to Mrs. Lacy's face. She was a Tuckerman, and, like all the Tuckermans, she had the Tuckerman pride of family.

But the Tuckermans—well, Mrs. Lacy often wondered what the world would say if it knew how many of the Tuckermans had made pilgrimages to Joe Lacy's office for financial balm and consolation. She strongly suspected that even she did not know how many Lacy checks had served as shin-plasters to suffering Tuckerman pride.

"You are going to make a station-master of him?" she asked in a voice that trembled a little.

"I'm going to make a Lacy of him."

"A Lacy!"

"Yes—a Lacy, though I dare say you would prefer to see him a Tuckerman. Now, Jane, I take off my hat to the Tuckermans, for they produce the finest women to be found in this, or any other, country. You are a Tuckerman and Lindy is a Tuckerman, but if Jim pans out to be only a Tuckerman—"

"Only a Tuckerman!" repeated Mrs. Lacy with gathering wrath.

"As I have said, the Tuckerman women are second to none, but the Tuckerman men—nothing in 'em, Jane. They're all dead ones.

"Jim's got to be a Lacy. You've had the making of Lindy. I'm going to have the making of Jim."

"Do you want Jim to begin life as you began it?" asked Mrs. Lacy bitterly.

"I began life wiping engines and shoveling coal for a living," Lacy answered quietly. "But there came a time when a real, live Tuckerman girl didn't see any coal-dust or engine-oil on the hands of Joe Lacy as he held them out to her. The Lacys may begin pretty low sometimes, but they keep right on looking up.

"When a fellow finds himself beginning life at the top of a ladder, the easiest way for him to get exercise is by climbing down. Jim ain't coming down."

"Jim's aspirations have always been high, Joe."

"So they have, Jane—so they have. I've got some of them here," and Lacy drew out a long, yellow envelope from his pocket. Then he went on:

"Jim's aspirations have certainly been high—so high that for the last two years his head has been in the clouds. Like everything else in this world, clouds have their uses. They give water and—lightning.

"There's no necessity of having Jim tote water from the clouds to the Great Western's tanks, but I'm going to make him sling lightning for a while."

"Sling lightning!" exclaimed the wondering woman.

"Over telegraph wires, Jane," explained her husband. "A lot of our station-agents have got to sling their own lightning. Jim learned the trick a couple of years ago. If he has forgotten it, so much the worse for him."

"One would have thought that by this time poor Jim would have learned all there is to know about your miserable railroad business," said Mrs. Lacy, raising her handkerchief to her eyes.

"Perhaps he has. I've been railroading for almost forty years—from roundhouse to the president's chair—and I haven't learned it all yet. But Jim's had a year in the car-shops, six months firing a locomotive, two months despatching, and four months with the chief engineer, so, having some Tuckerman in him, he probably knows it all."

"Why are you taking him from the freight office? While he was there we could, at least, see him sometimes."

"Well, Jane, the freight department wasn't quite high-toned enough for Jim. He was willing to lend it a helping hand now and then, but he's had more important things to think about. Know what Jim's been doing?"

"I only know that poor Jim, now only twenty-six years old, has been denied the

advantages of home life for so long that he is almost a stranger to his own mother and sister," she retorted angrily. "He wanted to go to college, but you never let him get beyond a high school, and for the last eight years you have kept him in your awful railroad atmosphere. He—"

"And he tried to fool me, hey?" Lacy said with a chuckle. "He tried to get a high-fangled education in spite of me—hired tutors to teach him languages, took music lessons, and learned to paint. Railroading might be good enough for old Joe Lacy, but it wasn't just the thing for young Jim.

"That's the reason railroading began to get classical. Say, Jane, you're classical and I'm just a plain railroad man, but Jim's a little of both. I've got a sample of him here.

"A few days ago Harris, Jim's superior, told Jim to make out and send to old Farran a requisition for twenty thousand way-bill forms. This is what Farran got from Jim. Listen:"

Drawing a sheet of paper from the envelope, Lacy read as follows:

> For thee I feel the love I felt—
> The love that thou didst know—
> When thou and I in Hellas dwelt
> Two thousand years ago."

Belinda laughed. Mrs. Lacy flushed violently and smiled like a schoolgirl caught in an act of mischief.

"Jim does write poetry sometimes," she explained sheepishly. "I suppose he slipped that sheet into the envelope by mistake."

"I hope so," said her husband, tapping the paper thoughtfully with his eyeglasses. "Old Farran's a little past his prime, but he didn't begin living at the time Methuselah got tired of his job. Two thousand years is stretching it a bit, it seems to me."

"Jim is fond of classical studies," Mrs. Lacy went on apologetically.

"But Farran ain't classical," protested her husband. "There's no reason for Jim being so fond of him."

Lindy's laughter had become uncontrollable. Sinking helplessly in a chair, she hid her face in her hands.

"Well, anyhow, Harris is still waiting for those way-bill forms," Lacy went on. "First, Farran thought some one had sent him a comic valentine. The poetry was written on a letterhead of Jim's department, and old Farran was mad clear through. 'Hellas' was a new one on him, and so—"

"'Hellas' was the ancient name of Greece," Mrs. Lacy remarked primly.

"Farran thought it was something hotter than that," said her husband. "He went to Harris and made a great stew about it. Then Jim explained.

"'Hellas' was Greece all right. Now if it's Greece Jim wants, I'll Greece him. I'll—"

"In Heaven's name, Joe, what—"

"I'm going to send him to Sparta."

"To Sparta?"

"I'm going to give the young fool a real, old-fashioned Greek training. I'm going to make him station-agent at Sparta."

"You mean—" began the astonished mother.

"Sparta, U. S. A."

"That miserable dead-and-alive place, where cousin John lives."

"There's nothing alive in Sparta, Jane—not even cousin John Tuckerman. Sparta's as dead as Greek. It's as dead as your cousin John's hopes of even waking up on resurrection morn.

"It's the deadest town in the deadest part of a dead district. You know what makes everything dead down that way, Jane? Why, the early settlers got classical, like Jim.

"They went in so high and mighty on Greek that they gave nearly all their towns Greek names. All they've got there now, besides those names, are fresh milk, old newspapers, and—cousin John. That's just the place for Jim."

"But Sparta—of all places!" Mrs. Lacy exclaimed. "Why have you chosen Sparta?"

"Well, old Blaney, who has been station-agent there for the last twenty years, got so all-fired tired of the town that he was willing to take long chances to get out of it. He figured that eternal life, even in a hot place, was better for his peace of mind than eternal rest at Sparta, so five days ago he committed suicide in the station."

Mrs. Lacy hid her face in her handkerchief.

"They haven't any paint to waste down Sparta way," Lacy added, with a chuckle. "When Sparta folks have got the price of paint, they paint barns, but there ain't been much barn painting done there for the last fifteen or twenty years. And when Jim hasn't got any studio parties to go to, or grand operas, or live people mixed up with his dead languages, he'll begin to see that it's plain old every-day railroading that pays for all that he'll ever get in this world.

"So, Jane, if that lad's got any Lacy in him, two weeks will find him so all-fired sick of Hellas that he'll drop the last two letters for the rest of his life. In six months from now good active railroading will be wedding-cake for every aspiration he's got on earth. He won't want to carry any more classical side-lines."

"But, Joe—"

"No use, Jane—the thing's settled. Jim slings lightning from Sparta. I said I'd give you five minutes. You've had seven. Going to kiss me good-by?"

CHAPTER II.

Young Blood and Old Veins.

A WEEK after Mr. Lacy told Mrs. Lacy his plans for their son Jim, a sturdily built young man, with a pleasing, animated face, stepped lightly from a dilapidated passenger-coach attached to the rear of a train of freight-cars. As he stood on a broad platform of rotting planks, and looked around him, he saw a small, sun-blistered building, flanked by two larger structures. The latter resembled barns, and their grimy sides seemed never to have known the touch of a painter's brush. The middle structure, however, yielded a few feeble evidences of the fact that it had been painted yellow—once. Over the door was a grime-encrusted sign which bore the legend:

Chicago 425 Miles	SPARTA	Olympus 14 Miles

The young man smiled grimly as his glance followed the red embankment of the railroad to where it disappeared from view among the low hills to the eastward.

"Only fourteen miles to the cloud-capped mountain home of the gods, eh?" he muttered. "Well, one ought to be able to see from here."

One of the trainmen, who had hurriedly entered the station, now ran out again and, as he swung himself up to the steps of the single passenger-coach, the locomotive whistled irritably, the couplings of the train rattled, and a few minutes later James Lacy found himself standing alone on the station platform.

As the young man started toward the station door, he suddenly became conscious of the fact that two persons were watching him from one of the windows. One of them was a bareheaded, misanthropic-looking young man in a striped shirt and blue overalls. The other, a man about fifty-eight or sixty years of age, was thick-set and of medium height.

His florid face was fringed with a growth of white whiskers, and though the full features were well-shaped, there was something dictatorial in their expression which did not impress the observant Lacy altogether favorably. He wore a Panama hat, a black alpaca coat, white vest, black tie, and light flannel trousers.

Perceiving that the man on the platform had observed them, the two men slowly made their way to the station door. Their scowling faces indicated that they were not advancing with anticipations of pleasure.

"Are you Joseph Lacy's boy?" asked the elder man, with almost startling abruptness.

"Yes, I'm Jim Lacy," replied the young man pleasantly. "Are you my mother's cousin John?"

The person thus addressed cleared his throat, and the scowl deepened on his face. He held out his right hand gingerly.

"How are you, James?" he said perfunctorily. "Yes, I am John Tuckerman, a distant relative of your mother's. It is because of this fact, I dare say, that she wrote me, asking me to meet you. That's why I'm here."

"It's very good of you, I'm sure," said Jim cordially, as the hand of the "distant relative" slipped from his grasp.

His inquisitive, smiling glance wandered to Tuckerman's melancholy looking companion.

"This young man is Adam Flitch," Tuckerman explained, as he removed his

hat and wiped the perspiration from his florid face and brow.

"Ah, yes, the night-man," said Lacy, as he shook hands.

"Yes, the night-man," Tuckerman replied with a scowl. "His faithful service in our community for the last six months should have made him the logical successor of the late Mr. Blaney. Any other railroad would have given him the promotion, but Mr. Flitch is not the son of a railway president."

Flitch gave his head a peculiar little jerk toward the right shoulder, and looked even more melancholy than before.

"It was a great disappointment to him, and, I may add, to us, James," Tuckerman went on.

"I can easily understand it," replied Lacy solemnly, "for it was a great disappointment to me as well. I am perfectly willing to swap jobs with Mr. Flitch if it can be arranged."

The two men looked at the speaker sharply. "I hope, James, for the sake of your poor mother, that you will prove equal to the responsibilities of the post," said Tuckerman gravely.

Lacy started. He had never suspected that anything in Mrs. Lacy's life had given any one cause to refer to her as "poor." Indeed, the world had long been disposed to regard her as a distinctly fortunate woman.

"I will do my best," he answered shortly.

"In a few weeks I may be able to entertain you at my home, James," said Tuckerman. "In the meantime, however, you have my best wishes. Good-morning, Adam. Good-day to you, James."

The "distant relative" of Mrs. Lacy's turned abruptly and left the station.

Lacy looked after him wonderingly, but said nothing.

"Well, let's go into the office," suggested Flitch gloomily.

Lacy nodded, and the night-man led the way to a room that was partitioned off from the large, dismal, grimy waiting-room. On a pine table a sounder was clicking viciously:

"'Sa—sa—sa."

"What's our call?" Lacy asked.

Flitch jerked his thumb toward the operator's table.

"That's us," he answered carelessly.

"Sa?" queried Lacy.

Flitch nodded.

"Why don't you see what it is?" the new agent asked, with some sharpness.

"They're only fooling," replied Flitch. "There's no business for us after number 10 goes by. I reported her. There won't be anything behind her on this division till four o'clock."

Lacy went over to the table and laid a finger on the key. "I—i—sa," he clicked.

"Fatted calf come yet?" was the message he read from the sounder.

Lacy looked questioningly at Flitch.

"That's you," explained the night-man.

Whereupon Lacy replied to the interrogator:

"Yes, thanks. I'm here."

The new agent again turned to the night-man.

"Where am I going to put up?" he asked.

"Over at Remsen's — white house down the road. Mr. Tuckerman fixed it for you. Blaney lived there till he died."

Lacy looked thoughtful.

"Where do you hang out?" he asked.

"I live with Mr. Worley's family—ten minutes' walk from here."

"At a Sparta gait?" asked Lacy.

"Sa—sa—sa," clicked the sounder.

Lacy answered the summons.

"Chicago wants to know 'How's Hellas?'" ran the message.

To which Lacy responded:

"Off five-eighths this morning. How's wheat?"

The wire was silent. Lacy again addressed Flitch:

"Old man seemed pretty glad to see me this morning, didn't he?" he said.

"Do you mean Mr. Tuckerman?"

"Yes. Is his family well?"

"Mr. Tuckerman is very proud of his family."

"Is that the reason he seemed so anxious to get me up to his house?"

An expression of severity settled on the features of Mr. Flitch.

"Mrs. Tuckerman and Miss Eunice are there now," he explained.

Lacy looked puzzled.

"I do not think Mr. Tuckerman quite

approved of Miss Tuckerman's marriage," Flitch went on.

"Miss Tuckerman?"

"To Mr. Lacy—your father."

"Oh."

"Then he saw a picture of your sister that displeased him. It showed her up like an actress—highly improper it was, Mr. Lacy."

A dark flush overspread Lacy's face, and his eyes flashed.

"I don't quite understand you," he said quietly. "My sister never was an actress, and—"

"Sa—sa—sa—sa," sang the sounder.

Lacy opened the key.

"Cleveland says Christopher Columbus has discovered America and has landed at San Salvador," came the message.

Lacy replied:

"Tell Cleveland: Thanks. Sparta has been informed and has turned over to sleep on the other side."

"Some folks think Sparta's slow," explained Flitch.

"We were speaking of a picture of my sister," said Lacy coldly. "It displeased Mr. Tuckerman, I believe you said. What reason have you for saying that it represented her as an actress?"

"Maybe it was only as a society woman," replied Flitch with a sigh. "It was in a newspaper, and people round here got the idea that she gave too much space to diamonds and pearls and not enough to collars and sleeves."

"Sa—sa—sa," chirruped the sounder.

"What's up now?" Lacy clicked back.

"Collinsville says Tyre reports fast freight carrying last Christmas to Sparta has overtaken the time when thou and I in Hellas dwelt, two thousand years ago. What to do?"

Grinning sheepishly, Lacy shot back:

"Tell Bill Kendrick that the fool freight's going too fast. Flag it at Sidon and have cargo transferred to Noah & Co. for shipment on the ark *via* Panama Canal. Sparta has sworn to put nothing but feet into her stockings until she learns that the Declaration of Independence has been signed by the Continental Congress."

The night-man looked at the new agent thoughtfully.

"You seem to have an awful lot of friends along the line," he observed.

"Friends have their uses, Mr. Flitch. If it hadn't been for my friends I would never have landed such a gilt-edged job as the one I've struck here. Well, so I am not to visit Mr. Tuckerman while Mrs. Tuckerman and Miss—Miss—"

"Miss Eunice," put in Flitch.

"Miss Eunice is his daughter?"

"Miss Eunice is one of Mr. Tuckerman's daughters. Miss Elizabeth, the elder, is abroad. I never saw Miss Elizabeth."

"How old is Miss Eunice?"

"Miss Eunice is fifteen."

"What's Elizabeth doing abroad?"

"Miss Elizabeth is cultivating her voice."

"Sorry I didn't see her before she sailed. Girls who have had their voices cultivated abroad are a little likely to be overbearing when they get back. Well, Mr. Flitch, if you'll be good enough to put me in touch with the shop routine, I'll wade right in while you trot off to the virtuous couch and unruffled slumbers of a chap who has no sister who affects sleeveless gowns and diamond dog-collars."

The ceremony incident to initiating Lacy into the mysteries of Sparta station procedure occupied only a few minutes. Then Flitch left him.

Walking to the rear of the station, the new agent scanned the neighborhood for the town that gave the station its name. A straggling group of half a dozen buildings about a thousand yards up the road looked as if it might be Sparta, but Lacy didn't know.

It looked promising, but there was something scarcely less interesting nearer at hand. This was a quaint archeological study consisting of a man, a buckboard, and a mule.

The man said he had "come from Remsen's to get that thar trunk o' yourn," and as he did not look sufficiently energetic to make any misrepresentations, Lacy let him take it. When the trunk was fairly on its way to its destination the new agent returned to the office.

There, seating himself in an old armchair, he placed his heels on the telegraph-table and opened a volume of "Euripides." He was absorbed in the

adventures of *Iphigenia* and *Orestes,* when the sounder again manifested symptoms of palpitation.

With a flushed face and an exclamation of disgust, the young man brought his feet to the floor.

"Sa—sa—sa," it called.

Lacy's response was impetuous. He said:

"Sparta too busy to take any more fool messages. All further felicitations inspired by Lacy's appointment to this post may be written out and mailed to the hunk of moss that does duty here as post-office. If any—"

The man at the other end "broke" him impatiently. "No kid this time. Real goods."

"Let's have it," Lacy demanded. Then he heard:

JAMES LACY,
Sparta:

Good luck. When I was your age I took old 103 out of Kendalton and made world's record run to Chicago. My wages were seventy dollars a month. Mother and Lindy send love.

(Signed) J. L.

The new agent replied:

JOSEPH LACY,
President's Office,
Great Western:

Thanks. Pretty good from Kendalton, but if you had taken old 103 out of Sparta she wouldn't have stopped at Chicago. You and she would be running yet, and you wouldn't have wanted any pay for the job. Love to mother and Lindy. (Signed) JIM.

CHAPTER III.

A Gruesome Discovery.

THE rest of the morning was uneventful. Now and then the sounder would give further evidence of the fact that Lacy's misadventure with old Farran was affording a vast deal of amusement to friends in various cities, but his retorts gradually became so crusty that the distant jokers ceased to make him the object of their attacks.

Shortly before noon a country boy appeared at the station with the mule and buckboard which had taken away Lacy's trunk. The boy explained that, in accordance with the practise that had been observed during Blaney's time, he had come to "take charge" while the agent went with the mule and buckboard to Remsen's for dinner.

Arriving at the house which he was now to regard as his quarters, he was gravely greeted by a man of middle age who introduced himself as Remsen. He was a tall, stoop-shouldered man, whose scraggy gray beard half concealed a face which appeared to have been seamed and hardened by a prolonged period of disquieting meditations.

He wore no necktie, coat, or vest, but their absence was atoned for by the immaculate whiteness of his collar and shirt and the interesting play of the brass pulleys of his blue suspenders. Having informed his guest that he would find his trunk in Blaney's room, he led the way to a big kitchen, in which the prospective boarder found the family seated at dinner.

"Well, mother, young Lacy's here," said Remsen wearily. "Sit down there, Jim."

Lacy's glance promptly marked four solemn individuals, who seemed to be regarding him with sullen disapproval. One of them was a woman about fifty years of age, whose principal attraction was a silver-mounted, black bone comb which was stuck in a pathetic little roll of gray hair at the back of her head.

She sat at the foot of the table, and at her left was an angular, uncompromising-looking female with black hair and eye-glasses. This, as Lacy afterward learned, was Meg, the only child of his host. The other two persons were Wilson and Moll, the "hired men," and, judging by the hue of their hands and shirt-sleeves, they had evidently had a hard morning of it in barn or field.

Having seated himself at the head of the table, Remsen at once addressed himself to the task of carving a leg of pork. His voice was the first to break the silence.

"How's your father?" he asked.

"Oh, he's as vigorous as ever," replied Lacy cheerfully.

"Well, then, there ain't much chance for improving this here branch of the Great Western, I suppose," said Remsen with a shake of the head which was ex-

pressive of discouragement. "Old Joe Lacy ain't strong on improvements so long as the old system keeps puttin' money into his till. What we need 'long this line—"

A discourse on the needs of Sparta occupied nearly ten minutes; then, satisfied that he had done justice to the subject, Remsen looked sharply at Lacy.

"You ain't reckonin' on stayin' long in Sparta, are you, Jim?"

"I don't know," the young man responded. "I am under orders, you know. Like soldiers, we railroad men don't know when or where we may be transferred."

Mrs. Remsen coughed slightly. Her daughter smiled knowingly as she conveyed to her lips some pork gravy which she had collected on the end of her knife.

"I reckon you won't stop long," said Remsen, with a sigh of satisfaction. "If you're fond of company, you'll be gettin' lonesome pretty soon. Folks round here ain't flourishin' like they'd be if they had a railroad that was half-way decent, but they're mighty particular who they get friendly with.

"They ain't got much love for Joe Lacy, an' they've been hearin' lots of things about you since they got word you was goin' to be the new agent. There's one thing you've got to remember, Jim. Things that's winked at in the best circles of Chicago an' Cleveland ain't winked at by the best circles of Sparta."

"I am afraid you know more than I do about the merits and shortcomings of the best circles in the cities you name. The fact is, I am not what might be called a society man."

"You ain't!" exclaimed Miss Remsen, in an aggrieved tone. "Why, them Tuckermans have been tellin' it all around that you Lacys, bein' related to the Tuckermans, was all the fashion in Chicago. We seen a picture of your sister, too, an' she didn't have no more clothes on her than them there society women neither. She—"

"Meg!" protested Mrs. Remsen severely. "A young woman like you oughtn't to talk about such things."

"Well, mother, I've just got to speak out my mind," said Meg, fairly bristling with righteous indignation. "I've noticed that since folks round here seen that picture, them Tuckermans ain't sayin' so much about Mrs. Lacy bein' one of them. John Tuckerman may be easy about some things, but his wife ain't.

"Everybody knows that if old Joe Lacy did right by Sparta, and the other towns along this here branch, his daughter wouldn't be building diamond walls round her neck an' rattlin' pearl necklaces every step she takes. No, siree. Now, that's my say, an' I don't care who knows it. Ben Moll, pass me that pepper!"

After having been subjected to this sort of thing for nearly three-quarters of an hour, Lacy heaved a sigh of relief as he seated himself on the buckboard again and started back to the station. The afternoon was scarcely more lively than the morning. Two trains stopped, but the crews were so anxious to be off that Lacy was able to exchange only a few words with some of the men.

In one of the drawers of the battered desk in the office he found a bunch of keys. Taking these, he proceeded to visit the buildings that flanked the station proper, which consisted of the waiting-room and the agent's office.

He found that one of these buildings served as a combination freight-house and baggage-room. The other was divided into two rooms, each having a floor space about thirty feet wide and forty feet long. There was no communication between them, but both had doors which opened on the station platform. A door in the eastern room opened on a little platform in the rear, but the western could only be entered from the front.

In the eastern room was a miscellaneous assortment of old tools such as are used by section-hands. The walls were constructed of unpainted boards. The western room, like its neighbor on the east, was about twenty feet in height.

Here, however, the walls and ceiling were lathed, but unplastered. In the rear wall were two high, grimy-paned windows, the sills being about seven feet from the floor. With the exception of the door in the front the other walls were blank.

The purpose for which this apartment had been designed originally was not apparent. It was clear enough, however, that whatever it might have been, it had long ago been abandoned. Time and the

sun which streamed in through the windows had darkened the lathing, and the musty atmosphere and dust-covered floors indicated that many weeks had passed since any one had entered the apartment.

The only articles in the room were four packing-cases. Of these three—which were ordinary square boxes—were empty. The fourth, standing on end by the rear wall, was about six feet high, three feet wide, and three feet deep. The cover was securely fastened by stout wooden cleats and iron bands, which girdled the box.

This unopened case caught Lacy's attention. Its resemblance to those boxes in which burial caskets are shipped was so remarkable that Lacy became conscious of that sensation which usually steals over a man who unexpectedly finds himself in the presence of the dead. This was modified in some degree, however, by the reflection that such boxes were not usually bound with iron bands.

Approaching the box, the new agent surveyed it critically. He saw that it was stoutly made, and that the wood was oak. On the cover were painted, in black letters, the words, "Borkman, Sparta."

The young man grasped the corners of the box firmly and tried to push it backward, in order to test its weight. It was immovable.

"What the deuce is it, and how long has it been here?" he muttered as he stepped back and stared at it darkly.

Leaving the door open, in order that fresh air might enter the apartment, Lacy returned to the inner office and Euripides. The day was sultry, and as it wore on Lacy felt a sense of drowsiness stealing over him. Even reading became irksome, and at length he laid aside his book.

As he sat with his heels on his desk, and his hands clasped behind his head, he permitted his thoughts to wander, but every few minutes they reverted to the mysterious box, and he fell to speculating on its contents.

When six o'clock arrived, the new agent reflected that since he had entered upon the discharge of his duties he had reported the arrival and departure of two trains and had received three barrels of oil, a box of dried fish, and a dozen wooden rakes. He had sold no tickets, nor had his solitude been disturbed by the visit of any resident of Sparta other than the boy who had appeared to relieve him while he went to dinner at Remsen's.

At half past six Flitch reported for duty, and shortly afterward the boy and the buckboard reappeared to take Lacy to supper.

Returning to the station two hours later, Lacy found himself even more disgusted with Sparta than he had been before. The small, meanly furnished room which had been assigned to him at Remsen's was far from his liking, and the idea had occurred to him that he might arrange to have the unplastered room at the station completed and furnished in accordance with his tastes.

Accordingly, he asked Flitch to tell him for what purpose the room had been designed. Flitch looked at the new agent sharply.

"It's a kind of lumber-room—like the other one, I reckon," he replied. "There's nothing in there, though, that anybody wants."

"What's in the tall box?" Lacy asked.

The eyes of Flitch grew wider.

"You haven't been in there, have you?" he asked.

"If I hadn't, I should scarcely have known of the box," the new agent retorted.

"Blaney said nobody must go in there without orders," said Flitch.

"Orders from whom?" demanded Lacy.

"Why, I don't know. From the company, I suppose."

"How long has it been since you were in there?"

"I've never been inside. The door hasn't been opened, so far as I know, since I came to Sparta."

"Well, there's a big box in there, marked 'Borkman, Sparta.' Who is Borkman?"

A puzzled expression settled on Flitch's face as he looked thoughtfully at the floor. After a brief hesitation, he shook his head.

"There's nobody named Borkman living round here," he said.

Lacy paced to and fro for a time. Then, turning to Flitch, he said abruptly:

"Get me a lantern, a screw-driver, and a hatchet."

Flitch started and looked at his new chief curiously.

"You ain't going to—" he began.

"Do as I tell you," commanded Lacy.

Flitch looked at the speaker wonderingly. It suddenly dawned upon him that, however good-natured the new agent had appeared before, he was a man who would brook no trifling. Into the eyes that had seemed half indolent there had come the strange, cold glint that many men had seen in those of "Old Joe" Lacy.

The night-man shuffled off reluctantly. When he reappeared, Lacy was turning over the pages of the freight "blotter." At length he seemed to have found what he sought. Placing a finger on one of the items of the book, he turned to Flitch.

"Here we have it," he said. "'Borkman—marble block—freight paid—hold for owner.' The thing's been here ten months."

"He hasn't sent for it," Flitch replied.

"Perhaps he hasn't been notified that it's here."

"I guess Blaney attended to that."

Lacy shrugged his shoulders. "Well, it's about time we were collecting storage charges on it." After looking thoughtfully at the floor for several moments, he added: "I know something about shipping freight, but I'm hanged if I ever saw a block of stone boxed up like that. Flitch, I'm going to have a look at it."

The night-man nodded resignedly. Lacy took the lantern from his hands and led the way to the room in which he had seen the box. As the two men entered the place, an exclamation from Flitch caused Lacy to look over his shoulder.

"What's the matter, old man?" he asked carelessly.

The face of the night-man had grown suddenly longer and wore an expression in which wonder and alarm were blended.

"It looks as if a graveyard or undertaker's shop would be a better place for it than here, doesn't it, Flitch?" he said.

"You don't think—" gasped the bewildered night-man.

Lacy laughed shortly. "Oh, no, Flitch," he replied reassuringly. "It's not as bad as that, I hope. It's ten to one that we will find only a block of marble, after all; but marble shippers don't usually board in stone like this. It's heavy enough to be marble, but—well, why didn't they put the thing in a crate?"

Bidding Flitch hold the lantern, Lacy took a hammer and proceeded to strike the box sharply in several places. The hollow sounds produced by the blows varied somewhat. At length, stepping back, Lacy looked thoughtfully at his companion.

"Too much sound in there for a block, Flitch," he said with conviction. "I'm going to open it. Put down that lantern and give a hand with one of those screwdrivers."

The night-man scowled; but, though it was apparent that he had no heart for his task, he offered no protest. The screws were large and well driven; but, one by one, they fell to the floor. When all were drawn, Lacy picked up the hatchet and addressed himself to the task of forcing loose the iron bands.

At length the last one yielded to the prying blade of the hatchet, and, grasping the loosened cover, Lacy drew it toward him. Flitch's gaze was the first to penetrate the dark interior of the box.

"Oh, my gracious! What's that?" he gasped in a voice that was vibrant with horror.

Lacy stolidly stepped aside and leaned the cover against the wall before he made any effort to learn what the removal of the cover had revealed.

"Great Heavens, man, it's—" faltered Flitch, as, still grasping the lantern he had raised, he began to edge toward the door.

"Come back, you fool!" commanded Lacy angrily, as he strode quickly toward Flitch and took the lantern from his trembling grasp.

Holding the lantern on a level with his head, Lacy again stepped in front of the upright box and saw the cause of Flitch's consternation. Within, heavily swathed in bagging, Lacy saw the unmistakable outlines of a human figure.

CHAPTER IV.

Face to Face with a Ghost.

FOR several minutes the silence was unbroken. Lacy, still holding the lantern aloft, stood immovable.

There could be no doubt that the figure in the upright box before him was that of a human being. In the bagging that enveloped it, it had the appearance of a mummy, or one of those shotted bags in which persons who die at sea are committed to the deep.

At length a sound that was half sigh, half hiss, issued from the lips of the horrified Flitch. Lacy's muscles relaxed; and as he lowered the lantern and looked over his shoulder, the night-man muttered between his trembling jaws:

"Oh, this is going to be a terrible thing for Sparta, Mr. Lacy. Nothing of this sort-ever happened here before."

"Hold the lantern, Flitch," said Lacy.

As the night-man took the light, Lacy drew out a penknife and, thrusting his hands into the box, began to cut the cord with which the bagging was sewed. Mournful exclamations fell in rapid succession from the lips of the unhappy Flitch, but Lacy gave them no heed.

At length enough of the cord was removed to allow Lacy to draw aside the cloth that covered the head of the figure. This action revealed a human face of surpassing beauty and dazzling whiteness. Flitch could bear no more. With a wild yell he fled to the door. Lacy followed quickly and seized the lantern from the fleeing man. When Flitch was outside, Lacy closed the door and returned to the box.

For several minutes he gazed at the white face he had uncovered, then a deep sigh of admiration escaped his lips.

"By Heaven, no sculptor of our day could have carved a head like that!" he murmured in reverential accents. "It's only marble, of course, but— No, no, there could have been no original. The earth never held a live woman as beautiful as that!"

The young man's heart and mind were in a tumult. As the light of the lantern fell upon the splendid features within the box, Lacy fancied that the eyes of the image were regarding him with interest and pity.

Half choked by strange emotions, Lacy retreated a couple of paces and placed the lantern on the floor. As he drew out and opened the knife he had returned to his pocket, his hands were trembling.

"And to think that those fools have kept this—this—boxed up for nearly a year!" he muttered.

Who "those fools" were he had not the remotest idea. Blaney was one of them, no doubt; but Blaney was dead. The principal offender, however, was "Borkman," to whom this splendid masterpiece of the sculptor's art had been consigned. Who was "Borkman"?

With shaking hands and nervous haste, Lacy addressed himself to the task of cutting and pulling out the pieces of cord that fastened the rough fabric in which the figure was enveloped.

In five minutes the last strand was free. Lacy hesitated. He was breathing heavily, and his pulse was throbbing wildly. A sense of sanctity seemed suddenly to pervade the place, and the idea occurred to him that to carry out his original intention would be an act of impiety. The protests of his conscience were quickly stifled, however, and his shaking hands were laid on the rough folds. He began to work timorously; but it was not long before his grasp on the cloth became more resolute, and he proceeded quickly with his task.

Resolving not to look on the image until it was entirely free from its unsightly covering, he worked more and more blindly as the surface of the gleaming marble was disclosed. Until the last piece of bagging lay behind him on the floor, he saw only a block of white stone, and then—

If an angel, radiant with all the charms which make it a thing of heaven, had suddenly appeared before Lacy, it is doubtful if he would have vouchsafed it more than a protesting glance. In his eyes the very acme of feminine loveliness was expressed in the image whose charms he had so ruthlessly unveiled.

The image was that of a young woman whose figure represented the joining of youth and maturity. The beautiful face was calm, but in the eyes and round the lips there lurked an expression which seemed to indicate that laughter was less strange to them than sorrow.

The hair was dressed in a manner that was suggestive of the Venus de Milo. The arms and neck were bare, while a robe fell in graceful folds over the body and limbs. The left hand was raised to

the bosom and the right arm hung easily at her side.

Glancing at the pedestal on which the sandaled feet were standing, Lacy saw the single word, "Juno."

The young man, overwhelmed with wonder and admiration, stood motionless. Much as he had craved the privilege of seeing in the Old World the art treasures which were familiar to his mother and sister, it had been denied him. Old Joe Lacy knew of nothing in Europe that could enter into the making of an American railroad man, and so the son had been compelled to satisfy his artistic impulses with views of such plaster casts of the old masterpieces of sculpture as were to be seen in Chicago and other cities in the Middle West and South.

But how different was this dazzling, blue-veined marble from the plaster casts and the crudely wrought marbles he had seen before! Was it possible that this wonderful creation, with its wealth of beauty and expression, was wholly insensate? Then he recalled the story of *Pygmalion's* love for the beautiful maiden his genius had wrought from stone, and how that love warmed the marble to life.

Who was the sculptor whose gaze, penetrating a block of marble, had seen this glorious creature imprisoned within? Was it not one whose dreams had been of those women the old Greek poets had described? Was he to believe that the gods and goddesses of antiquity still visited the earth, or that the sculptor who had produced this image had indeed seen a living woman who had served as a model for this masterpiece?

With hands that still trembled, Lacy again laid hold of the wooden cover and placed it in front of the box in such a manner as to conceal the image. Then, picking up the lantern, he walked unsteadily to the door.

"Juno—Juno," he muttered as he found himself on the station platform. "If the queen of Heaven was as beautiful as that, men would never have ceased worshiping her."

As he walked slowly toward the door of the station waiting-room, the signboard above it caught his eye.

"'Olympus, fourteen miles,'" he read.

But he did not smile as he thought to himself:

"It is nearer than I thought."

In the office he found Flitch standing in the middle of the floor, with a white and haggard face.

"What are we going to do about it?" the night-man asked in feeble, anxious accents.

"Do about what?" asked Lacy sharply.

"That thing—the body in the box."

Lacy looked quizzically at his bewildered colleague. Did poor Flitch really suspect "that thing" had once been alive? The night-man's apparent agitation, however, plainly indicated that he did.

"Why, I suppose we'll have to keep it here until the owner sends for it," Lacy answered with an affectation of carelessness. "It is probably intended as a figure for some monument or other. I dare say this fellow Borkman will be around for it by and by."

An expression of doubt appeared in Flitch's eyes, which almost immediately gave place to one of unspeakable relief.

"Do you mean that it's only marble, after all—a real monument figure?" the night-man asked breathlessly.

"Of course. What else should it be?"

Flitch, now almost on the verge of collapse, sank into a chair.

"There's no use speaking about it to any one in Sparta," Lacy went on. "The company doesn't want its business discussed with outsiders. This is a matter that has to do only with the company, the Sparta agent, and Borkman; so there's no use in telling anybody that the statue's here."

There was something in this caution that excited the night-man's suspicion. He darted a quick glance toward Lacy, but, suffering from the effects of his recent agitation, he found himself too inert, mentally and physically, to invite controversy.

Giving no further heed to Flitch, Lacy pulled off his coat, seated himself at the desk, lighted his pipe, and proceeded to write letters to his mother, Lindy, and a few of his friends. When that was done, he bade Flitch good night and set out for his quarters at Remsen's.

Shortly afterward, Flitch, looking in

the drawer in which the key to the mysterious room had lain for many months, saw that the new agent had failed to return it to its place.

With his hands still grasping the edge of the drawer, Adam Flitch looked long and meditatively at one of the dingy walls of the office; then, with a characteristic jerk of the head, he muttered grumpily:

"She may be a marble monument, all right, but there's something queer about her face—it's something that—"

He stopped suddenly and his body grew rigid. There was a choking sensation in his throat; and as his eyes grew wide with terror, something seemed to crackle in his brain.

The white face which he had seen in the mysterious box was now peering at him through the grimy panes of the office-window!

CHAPTER V.

The Mysterious Message.

FOR a full minute the searching, unfathomable eyes of the apparition held the night-man's gaze. Then they began to grow wider; and the beautiful, white face assumed, as if in mockery, an expression of terror, which seemed to be a reflection of poor Adam's own.

From the lips of the fear-frenzied night-man rose a shrill, half-stifled cry. The dingy walls seemed to be rushing toward him. Reeling backward, he came to the door of the waiting-room. Here he turned and, rushing through the waiting-room, fled through the door in its rear.

Along the dusty, moon-lighted road he ran like a frightened deer. Not for a moment did he doubt that the specter he had seen was following him; but not until he overtook Lacy, who was just turning into the gate of the Remsen cottage, did the affrighted man venture to look behind him.

With a low groan of relief, he staggered to the side of the wondering Lacy and clutched his arm.

"She's out—out!" he gasped. "Oh, save me—help me, for the love of—"

His voice failed him, and, trembling with exhaustion, the unfortunate Flitch would have fallen had not the strong hands of Lacy grasped him.

"In Heaven's name, what has happened to you, man?" asked the bewildered Lacy. "You look and talk as if you had seen a ghost."

"I have! It's her!" Flitch panted.

"Who?"

"The woman in the box."

"You have been in the room where we opened the box?"

"No! No! She came into the office—to the window! She—"

"Come, come, Flitch, brace up!" said Lacy impatiently. "You don't mean to tell me you've left the office alone? It's as much as your job's worth to do a fool thing like that."

"I don't want any more jobs like this," the night-man whimpered.

"Well, criminal negligence may get you a job in the penitentiary some day if you get this far from your wire while trains are moving on your division," Lacy retorted. "Come, brace up, and let's get back as quickly as we can. You can tell me your troubles as we go."

"You are going back?" asked Flitch, shrinking away from his companion.

"Of course, and so are you. You've got your wind again, so let's be moving."

Slipping a hand under one of Flitch's arms, Lacy once more turned his face toward the station.

For some time the two men walked on in silence. Once or twice Flitch manifested a disposition to lag, but the tightening of Lacy's grip on his arm convinced him that he would be held to his task.

"Well, now, what was it?" Lacy asked quietly as they were drawing nearer the station. "Think you saw a spook, eh?"

"I saw the face of the young woman in the box," replied Flitch doggedly.

"Only her face?"

"That's all I noticed. I was sitting in the office when I looked up and saw the face staring at me through the window."

"Did she speak?" asked Lacy carelessly.

The night-man shuddered.

"No—no," he answered hoarsely. "If she had spoken I might have done as

poor Blaney did. There was that in her face that—

"Oh, Mr. Lacy, it is horrible—too awful to speak about. It was her that did for Blaney; I'm sure it was."

The agitated Flitch, wringing his hands, made another attempt to draw back, but Lacy was obdurate.

"So you bolted as soon as you saw her face?" he continued.

"Yes, yes. I didn't see no use waiting."

They were at the rear door of the waiting-room now. This was open, and several lamps were burning dimly within.

Moving limply as Lacy forced him through the doorway, Flitch appeared to be almost on the verge of collapse. A few steps brought them to the office, in which the sounder was clicking monotonously:

"Sa—sa—sa."

Lacy responded: "I—i—sa."

"Who's at the wire?" he read next.

"Lacy. What is it?"

"This is despatcher's office. Anything wrong?"

"Night-man ill. Sent for me. Not serious. All right now."

"Who answered at ten-forty-five?" came the query.

Looking at the clock, Lacy saw that the hands marked eleven. He darted a quick, interrogating glance toward Flitch.

"That was when—when—" faltered the night-man.

Lacy frowned.

"Did you?" he demanded sharply.

Flitch shook his head.

"I haven't touched the key for an hour," he muttered.

Again Lacy laid his fingers on the key.

"What answer did you get?" he asked over the wire.

"We asked who was at the key. The reply was 'Blaney.'"

Flitch groaned. Lacy bent lower over the table and he flashed back the query:

"Was there anything more?"

"Yes," came the answer. "We asked, 'What Blaney?' The reply was, 'The station-agent at Sparta.' We answered, 'This is no time for nonsense. The only Blaney known to us at Sparta was the station-agent who committed suicide there last week. Who are you?'

"To this question we have been trying to get a response for the last fifteen minutes. What explanation has your office to offer?"

To this Lacy, without even glancing at Flitch, promptly replied:

"Less than half an hour ago Flitch, the night-man, while alone in the station, was suddenly taken ill. It is likely that he was not mentally responsible at the time he responded to your call, though he is perfectly competent now. I will relieve him for to-night."

"Had night-man been drinking?"

"No. He had a queer sort of shock that upset his nerves. What happened to him might happen to any one. All right now. What was it you wanted?"

There was a pause; then the sounder began to click again.

"Circus-train, leaving Olin at midnight, will run east as extra to Olympus. Should pass Sparta at 1.15. No stop.—Gallinger."

Lacy wrote out this message; and he was in the act of hanging it on the order-hook, when Flitch clutched his arm.

"Smell 'em—smell 'em?" asked the night-man in frightened accents.

"Now, what in thunder is the matter with you?" Lacy demanded. "If you—"

He stopped—sniffed—glanced at the closed window and the open door—then sniffed again.

"Smell it now?" asked Flitch, upon whose forehead large drops of perspiration were beginning to gather.

"There's something that smells like—like lilies-of-the-valley," said Lacy thoughtfully. "What is it?"

"Funeral flowers," replied Flitch in a sepulchral whisper. "There was a big wreath of 'em on Blaney's coffin, and the perfume filled the church. It's—"

"Confound it, you blithering fool, if you keep this sort of thing up much longer, I'll be as daffy as you are!" roared Lacy, rising with an abruptness that overturned the chair in which he had been sitting.

The sound of the falling chair caused poor Flitch to start violently.

"Oh, Mr. Lacy, for the love of Heaven, be careful—be careful or you—we—" he wailed.

Lacy shrugged his shoulders, and, crossing to where Flitch was cowering

beside the door, he laid a hand on one of his arms.

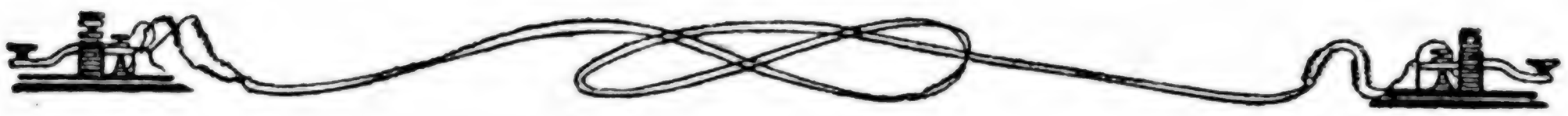
"Come, come, Flitch, get out of this," he said soothingly. "If I've got to do this night-trick, I'd rather be alone. You're giving me the creeps.

"Go home now and get to bed. A good night's rest will put you in good shape, and to-morrow you'll forget the whole business, or else you'll be ready to laugh at it. Come around at seven, and if you are all right I'll turn in till dinner and relieve you at one o'clock. Now be off with you."

Flitch protested feebly, and it soon became apparent that he was afraid to set out alone. Lacy was determined, however, and five minutes later the night-man was hurrying westward along the moonlighted road as fast as his legs would carry him.

Lacy, who had accompanied Flitch as far as the road, turned back to the station as soon as he saw the night-man well on his way. As he turned, however, his glance wandered eastward toward Olympus. There he saw something that caused him to halt abruptly.

(To be continued.)



LOCOMOTIVES WITHOUT FIRE.

A German Device Which Does Away with the Fire-Box and Eliminates All Danger from Sparks.

IN the *Daily Consular Report* for April 6 is printed a report of Special Agent Captain Godfrey L. Carden, of the United States Revenue Cutter Service, describing a fireless locomotive and its use in various plants in Germany, where the presence of explosives or combustibles renders the ordinary locomotive, or even electric locomotives, dangerous. The report says:

"Within a comparatively short time this type of locomotive was unfamiliar to some of the best locomotive men in America. The fireless locomotive is not only a success, but is practically the only type of motor-power which can be recommended for plants where the question of fire precaution is almost a first consideration, as for example, powder-mills, cotton-plants, wharves, and other places where the presence of an ordinary type of locomotive prejudices the insurance.

"I have had occasion to ride on one of these fireless locomotives, and its simplicity can be understood when I state that in the cab the mechanism consisted merely of a throttle-bar, reversing gear, and brake. Only one man was required to run the machine.

"In general appearance the machine resembles the ordinary type of locomotive minus the fire-box, funnel (smoke-stack), and sundry other attachments. It must be understood that this type of locomotive is unsuitable for uninterrupted railway service, but is essentially a yard-shunting machine; in other words, it must be kept near its base of supply, and this base of supply is the boiler of some local power station.

"At this local power station the tank of the locomotive is filled with steam, and on this steam-supply the locomotive will run from four to five hours, doing ordinary switching work.

"When I entered the cab the steam-gage showed a reading of forty-five pounds. I was informed that two hours had elapsed since the boiler was charged and that steam was taken on at one hundred and seventy pounds pressure. The chief engineer of the works stated that the engine could limp back to its station even with the steam pressure as low as one-half atmosphere.

"Contrary to one's natural impression, steam is not taken on at a high pressure. The pressure is about one hundred and seventy pounds per square inch; in other words, it is proposed to afford the locomotive a steam pressure practically the same as that in the boiler of the power station."

Such an engine should be a boon in many American establishments where it is necessary to avoid all risk of fire.

Off the Main Line.

Freaks, Fads, and Foibles of Railroads in Various Parts of the World and of the People Who Ride on Them.

EXCLUSIVE TRAVELING.

A Noble Englishman's Method of Avoiding Contact With the Common Herd En Route.

IN the famous Druce case that has just closed in London, it came out in evidence that it was the custom of the fifth Duke of Portland to travel on railroads in his private horse-carriage. The carriage would be mounted and firmly strapped on a flat car, and in this ungainly and uncomfortable manner the noble duke would be whisked across the country.

A British newspaper, commenting on this, says that it was by no means an unusual method of travel in the early days among the rich and conservative people of Britain. The railroads were always prepared for it, and kept a supply of flat cars—or trucks, as they are called—at all the principal stations.

The carriages were loaded and unloaded without extra cost to the traveler, and all he had to do was to pay for one private car in order to enjoy the privilege of roaming all over his private carriage during a long railway journey.

COURTESIES ON THE RAIL.

How a Southern Conductor Explained His Apparent Neglect of Hospitality in One Instance.

A CERTAIN old gentleman who boarded a train on the Charlotte and Taylorsville Railroad at Mount Mourne, North Carolina, recently, was evidently not a great traveler. When he had boarded the train, among several other passengers, he remained standing in the aisle, though there were several seats empty.

The conductor noticed the old gentleman, but thinking he was looking for some one on the train, or for a seat that suited him, went on collecting tickets. At last, he arrived at the old man.

"Why don't you take a seat?" he asked. "Do you prefer to ride standing?"

"Why, no! I was just waiting for you to ask me to take a seat. If you came to my house, I should not let you stand so long."

The conductor smiled, and in ready explanation of the difference, politely asked the old gentleman if he knocked on the car door before he entered.

LOCAL BEATS THE FLIER.

Story of What a French Engineer Did With a Slow Train When He Had To.

THE fastest way-train that ever careered through the "pleasant land of France" was an accident. It had no ambitions that way; it didn't want to be the fastest way-train in the country, nor to break any records at all.

It was a plain, unassuming local, filled with commuters, and it expected to pass its existence as such. But a momentary aberration on the part of a signalman launched it into fame and made it beat an express over fifty or sixty miles of France.

The way-train left Paris one evening scheduled for Amiens, but by a mistake of the signalman, after she left Creil she was switched to the track going to Compeigne. The engineer knew that he was followed by the fast express from Gare du Nord, and he knew there was no time to rectify the mistake, so he gave her steam and drew his train ahead at full speed. The track was clear for the express, so there was no danger.

When the passengers and train crew felt

themselves being pulled over the road at a hitherto unknown speed, and looking from the windows saw the landscape going by in a hurry, they began to think of the dear ones at home, fearing one and all that the engineer had gone mad.

But so far from being mad he was performing a highly intelligent feat, and the way he made that local eat the track would have been a credit to the flier behind. Through stations they dashed at breakneck speed until they came to Pont Saint-Maxence, where there is a siding. There the engineer came to a quick stop, got in on the siding in record time, and saw the express fly past without mishap and on the schedule.

STATIONS IN GARDENS.

As American Railroads Are Best in Transportation, So Will They Be Best in Beauty.

ONE of the things that must have struck the American traveler in England for a great many years is the beauty of the wayside railroad stations. The stations in all the small, and even moderately large places, are usually just railroad gardens, with station offices in them, in summer, except in cases where a station is perched on a high embankment.

But American stations are rapidly adopting the same attractive appearance, and probably before long the English stations will not be able to boast any advantage over us in that respect. This is especially true of the Pennsylvania. At a station on the Long Island Railroad six hundred trees and shrubs, besides beds of flowers, were planted last year.

Little parks and terraced gardens, with tiny sinuous paths, are beginning to appear at the country stations, and it is part of the duty of the maintenance of way department to keep them in order. Also, in the future the sides of cuts will be sodded with bluegrass sods, which, in addition to adding beauty, will help solve the drainage problem that is so troublesome in cuts.

PROHIBITION ON THE RAIL.

Companies and Managers Banding Together To Bring About a Reign of Total Abstinence.

NO more tobacco and whisky for railroads. That is the edict that has gone forth on many roads, backed in some cases by positive action on the part of the employees themselves. It is only a few months since Grand Chief Stone voiced the feeling of the Brotherhood of Locomotive Engineers when he so strongly denounced the use of alcohol among the members of the brotherhood.

Scarcely more than a year ago the Lehigh Valley urged every employee in the operating department to sign the pledge, and about the same time the Southern demanded that all its employees would cease smoking cigarettes. Still more significant is the later movement of the Chicago and Northwestern employees, twenty-five thousand of whom voluntarily signed the pledge at the beginning of the year, probably the largest single movement of temperance progress in history.

This was immediately followed by the action of the Baltimore and Ohio prohibiting train hands from using intoxicating liquor.

According to Charles R. Jones, the chairman of the National Prohibition Committee, there are over a million railroad men in the United States under what amounts to a practical rule of total abstinence.

STINGS OF CONSCIENCE.

What Happens When the Still Small Voice Gets Busy About Transportation.

CONSCIENCE funds don't grow rapidly, but they make up in quality what they lack in quantity and reproductiveness. There is no tainted money about a first-class railroad conscience fund, or if there is it is tainted money grown penitent, and there is more joy in the presence of railroad men over one dead-head that finds his conscience than over ninety and nine that keep on riding free.

The latest addition to the Santa Fé conscience fund is a sum of one dollar and ten cents sent to the station-agent at Topeka by a lady of Osage City. Ten years ago this lady had taken her children from Topeka to Osage City without buying tickets for them, and now, having been shown the error of her ways, she writes:

"I have just been taken into the church, and this debt has been on my mind for many years. I have the courage with my new faith to acknowledge my fault, and I enclose the amount that is due the railroad company. It is indeed humiliating to acknowledge this wrong, and I do it only with the strength of my new religion."

Queerest Railroads and Strangest Trains.

BY EUGENE F. WICKES.

ODDITIES are always attractive. In our circus days the side-show vied with the main tent in our childish wonder and admiration. Now that we are older, it is the normally odd that demands our attention. Freaks no longer draw our eyes, but rather the strange ways of our brothers in other parts of the world. They are perfectly natural to them, but very quaint to us.

Even the railroad, great leveler of customs and manners as it is, has not succeeded in making the whole world alike. Many strange practises continue and have imposed themselves on the slaves of the iron horse. In addition there are many railroads that are strange because of the peculiar conditions under which they were built or are operated. Hence the article which follows.

In the Side-Shows of the Transportation Circus Passengers Are Carried Free, Children Pay According to Height, and Trains Are "Manned" by Women and Boys.

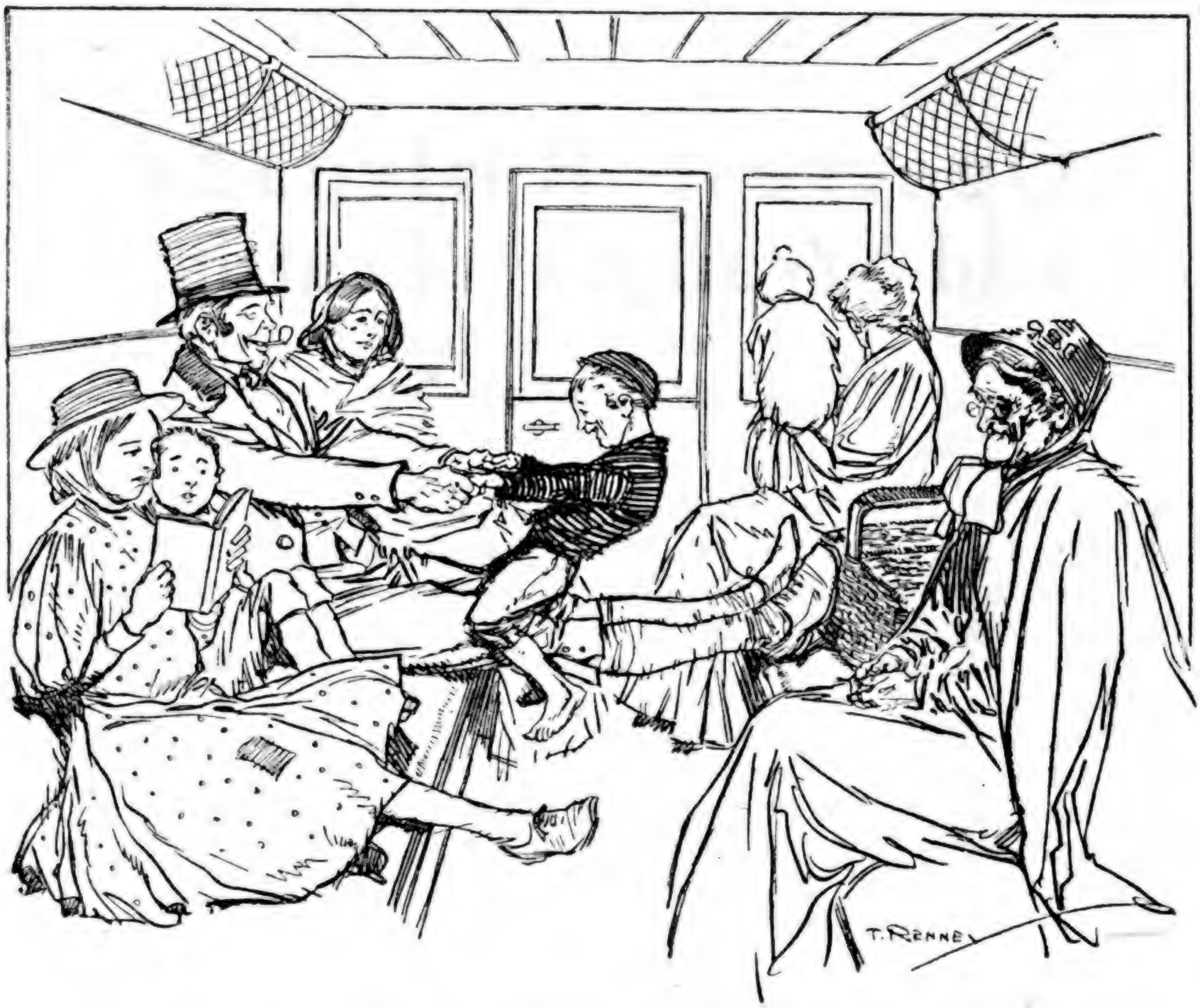
"MILLIONAIRE'S Road" is the most remarkable of the short, private lines of America. No fare is charged; passengers ride as freight; and each one of its milestones could be represented by a different millionaire owner.

It is an eleven-mile "system" in the Blue Ridge Mountains of Pennsylvania, the official name being the Chestnut Ridge Railway. From Lehigh Gap to Kunkleton it runs, and if ever the Central of New Jersey and the Delaware, Lackawanna and Western wish to connect, this little road may serve as the principal link.

Why "Millionaire's Road"? It is owned by twenty-two rich men, half of whom are millionaires of the first class, including J. Pierpont Morgan, Colonel John Jacob Astor, Howard Gould, Clarence Mackay, Chauncey Depew, W. E. D. Stokes, and Harry Payne Whitney. In reality the board of directors provides, not one, but two rich men per mile of line.

The originator and first president of the road was John Vinton Dahlgren. The builder of the line was a former superintendent of buildings in New York, Stephen Constable. He put the little affair through at a cost of sixty thousand dollars a mile.

Mr. Dahlgren, while hunting in the mountains about ten years ago, discovered enormous quantities of white (albino) clay, enough to make billions of brick. Forthwith he induced the millionaires named, together with other wealthy men, to subscribe the necessary money to build a road by which the bricks might be transported to Kunkleton. Only a few



ON ONE IRISH ROAD NEW SETTLERS TRAVEL FREE, AND THERE IS NEVER ANY LACK OF PASSENGERS.

of the money kings who "put up" have ever ridden over their baby road.

Private car for the president? Hardly! The line owns no passenger-car of any kind. Only a dozen or so clay-cars (flats) and two or three small engines make up the equipment. On the flats the Dutch farmers of the region travel as often as they please, with nothing to pay, despite the Interstate Commerce Commission.

Not even passes are required. Persons are carried as freight, for the road is not a common carrier. It's a distinctly private "Millionaire's Road."

World's Smallest Railroad.

But which is the world's smallest regularly organized *public* railroad? It is the Easingwold Railway, in Yorkshire, England. Only two and one-half miles long, its rolling-stock consists of one locomotive and two passenger carriages, and its only stations are its terminals.

The tiniest and quaintest of railways is run by a full-fledged corporation, and the line is standard-gaged and equipped just the same as the big North Eastern Railway over which it has direct connection with London.

The line has a capital of ninety thousand dollars, the smallest capital of any regular steam railroad in the world, so far as known. It runs from the town of Alne (on the North Eastern) to the village of Easingwold. Four times daily, or, as the English railway guides put it, "about four times a day," its single train makes the two-and-a-half-mile trip.

In 1891 this miniature road was built by wealthy residents of Easingwold, for their special convenience. It is used by all travelers bound for Easingwold, however, its charter imposing the same conditions on this line as on the greatest road in the kingdom. Many times its owners have had flattering offers from the North Eastern to come into the fold of amalgamated British railways, but all invitations have been ignored.

There is no train-despatcher on this line, and no accident of any sort has ever occurred on its tracks. The train conductor acts as general manager, and the engineer as general superintendent.

Its officers higher up are among its principal regular patrons. Solemnly and respectfully the road is listed in all English railway guides. In twenty years its time-table has not been changed by so much as a minute.

Royalty at the Throttle.

To revert to private railways, there's the Czar's extremely independent line from St. Petersburg to Tsarkoe-Selo, where the Summer Palace is located. The station at either end of the line is for the exclusive use of the imperial family, high officers of the court, and distinguished visitors.

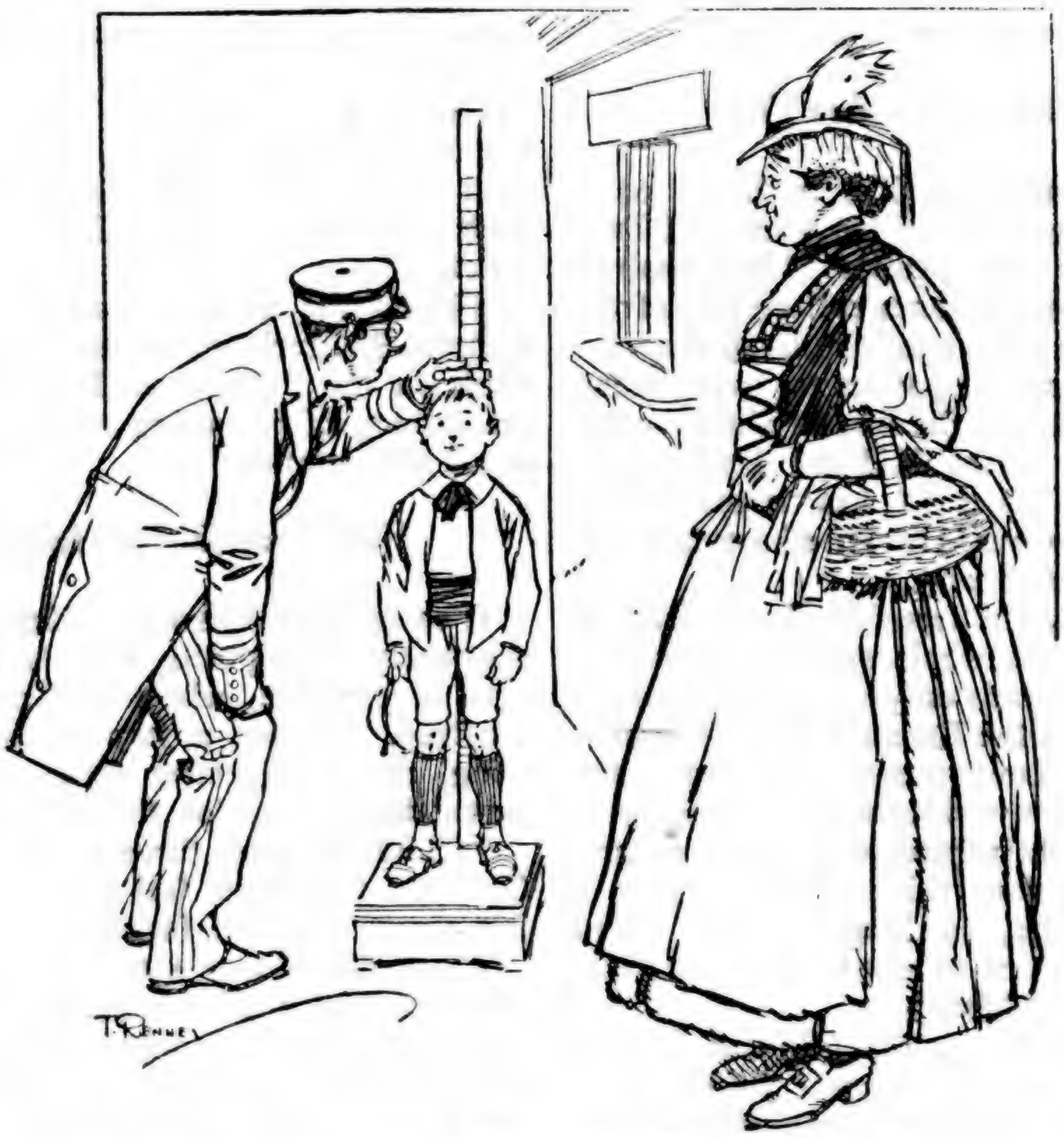
The comparatively few Americans who have had an audience with the present Nicholas have used the road by special invitation. Two trains are in operation, one being kept at either end of the line, each with steam up all the time, ready to pull out at a moment's notice.

There is no schedule. A train is run at the will of whoever wishes to travel by it. Time and again the Czar has sat on the right side of the cab, at the throttle, and run his own train from end to end of his own line.

A Spanish railway, too, one that is a long way from being a private road, permits a man of noble blood to sit at the throttle and run its trains. In this case the patrician engineer runs a crack express twice a week.

The road is the Spanish Northern, the grandee-engineer is his grace the Duke of Saragossa, the crack express is the Madrid-San Sebastian Limited, running from the capital to Spain's most fashionable seaside resort.

How is it that a Spanish "public service corporation" permits an amateur to run its best train? The duke is an ama-



SWITZERLAND HAS DEVISED THE PLAN OF CHARGING FOR CHILDREN ACCORDING TO HEIGHT.

teur only in the sense that he does not depend on his work for a living. He is not a member of anything Spanish corresponding to our Brotherhood of Locomotive Engineers. In all other respects he is a true devotee of throttle and water-glass and air-brake.

This whimsical nobleman, who is immensely wealthy and belongs to one of the oldest families in the kingdom, was a devotee of the motor-car, but suddenly conceived a passion for engine-driving a couple of years ago. He studied, made runs as a fireman, and by April, 1907, there was very little he didn't know about an engine.

The Spanish Northern at first placed the duke in charge of an engine pulling a local. The new hand attended to his duties as conscientiously as any real engineer who depends on his wages for a living. At the present time he runs the fastest train in Spain. When the king traveled to San Sebastian in May, a year ago, one of the foremost gentlemen of the most ceremonious court in Europe drove the engine of his majesty's special.

Where Rides Are Free.

How would you like to travel on a railroad scot-free for ten years? I have said that the private "Millionaire's Road" in Pennsylvania collects fares from no one. A great public railroad that carries nearly all the passengers living along a certain part of the line absolutely without charge is the Midland Railway, in Ireland. This road has issued passes good for ten years, to all who would settle on specified land.

Naturally the free-for-all rule isn't in force over the whole system. Travelers are carried gratis only on two branches in the north of the Emerald Isle, the Larne and the Londonderry divisions. On these all new residents since January 1, 1904, without regard to age, sex, or previous condition, ride without paying a single copper, so long as they dwell within a radius of one mile of any station on either branch.

Three years ago the Midland decided that the country adjacent to the lines named ought to have a larger population. Accordingly, the company announced that it would give free passes to proprietors or tenants of new residences, good for ten years."

Hundreds of passes have been handed out since the scheme was put in operation, and persons now holding passes may travel without payment for more than six years to come. Passes are still issued on the same conditions, each bit of cardboard being good up to January 1, 1914.

The company's secondary object is that new residents may have the advantage of shopping in Belfast and Londonderry, without paying railroad fares. The Larne division runs from Larne Harbor to Belfast, and the Londonderry division is operated between Coleraine and Londonderry. The passes are first or second class, according to the annual value of the "residences."

The result of this free-riding plan is that all trains go packed to the limit, farmers often taking along their entire families — wife, children, and grandmother—whenever they go marketing. The only revenue from either division comes from the transportation of "goods."

Here's a railroad that charges fares for children according to the height of each child. The ticket-agents measure each juvenile person before selling a billet.

This is the Geneva Railway, out of Geneva, Switzerland. Managers of other roads in the "playground of Europe" are talking of installing child-measurers at all their stations.

Fare According to Height.

It came about this way: Disputes were constantly arising with tourists as to the ages of children, where half-rates were involved. To put a stop to the squabbling, the management three years ago posted in each station this notice:

"Children under three feet high, free. Children over three feet and under four feet six inches, half-fare."

The result is that a traveler from another part of the Continent, entering a station in total ignorance of the unusual rule, says to the agent: "A half-ticket for my little boy, please. He's only six years old."

"Pardon me, madame, isn't he too

tall?" the agent replies. "Kindly let your boy step on the measurer."

The child takes his place on a machine that stands beside the ticket-window. Whereupon the agent, perceiving that the boy measures under four feet six,

IT IS ON THE RAILROADS OF FINLAND THAT THE TRAINMEN ARE WOMEN.

says: "All right, *madame,* here's your half-ticket."

The new regulation has proved a good one. Disputes are never heard. One day an American mother, a tourist, obediently placed her little girl on the measurer in the Geneva station. The child measured a half-inch too much to secure the half-rate.

"I'm sorry I bought you those high-heeled shoes," the mother said. "Take them off, dear."

In her stocking feet the child again submitted to the measurer, and many francs were saved to the thrifty mother.

Cars Without Roofs.

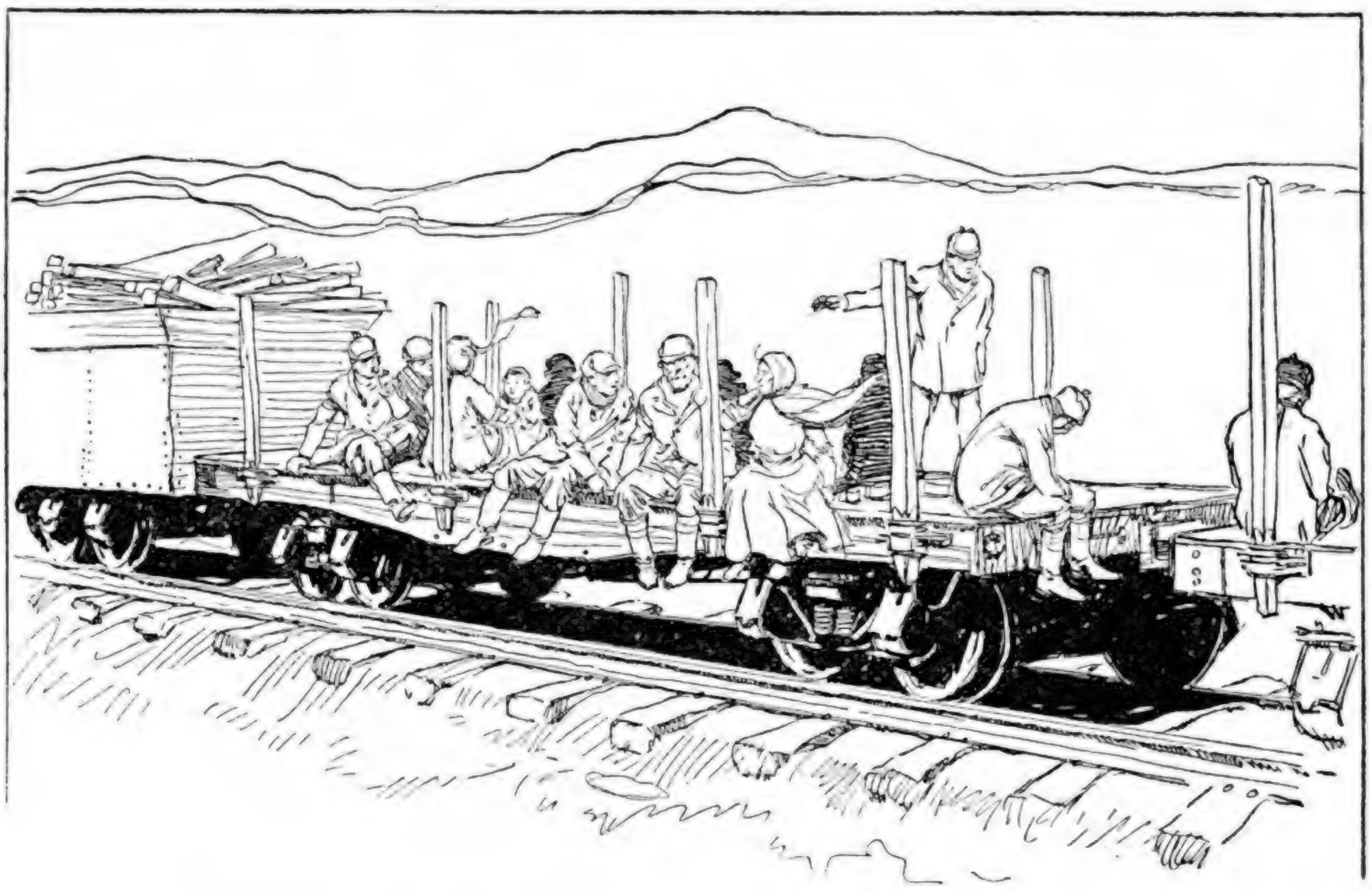
A railroad that runs cars without roofs? It is the most northerly line on the American continent, the Nome-Arctic road, sometimes called the Seward Peninsula Railroad, in Alaska. This road of the roofless cars extends from Nome on the coast, up into the hills of gold.

The principal excuse for building this line was the transportation of supplies to mining camps. Hence, only flat cars were put on. In these "roofless Pullmans," as the miners call them, that unconsidered trifle, the passenger, must hang on as best he can, with a keg of nails for a seat, at ten cents a mile.

In these "open" cars of the Arctic, men, women, and sometimes children, travel back and forth in rain or shine, huddling on the floor or on boxes, kegs, or bales, devoutly thankful that they can move a hundred miles for ten dollars, instead of paying sixty dollars for a team, as they were obliged to do before the road was built.

The conductor of the long, roofless train wears leather overalls, smokes twenty-five-cent cigars, and steps indifferently on animate or inanimate freight in his fare-collecting tours. The roadbed is on stilts most of the way.

A huge wooden barn serves as a station, midway along the line. It is also a



IN NOME, THE LAND OF GOLD, ROOFLESS PULLMANS ARE THE RULE.

railroad "hotel," with bunks four deep, from floor to ceiling. A tin can on a rusty stove is the source of the hot and cold water supply.

On the roofless piazza, Chinamen cook and serve the meals. Trains are run only in summer.

The name of the road's present terminal in the interior is just Ex. The "Ex Terminal and Hotel" is run by women, who serve meals to all railroad employees and travelers who arrive by the "roofless." Last year they leased both station and roundhouse from the railroad company, the station being used for "roomers" and the roundhouse for restaurant. Also they contracted to pull up both station and roundhouse and, with the shanties, follow the railroad in its onward march to Kougurok, where the roofless road intends to end itself.

Killing Weeds by Train.

Have you ever heard of the "Weed-Killing Train"? It is run in advance of each passenger-train through a South American jungle on the equator in Ecuador, from Guayaquil on the coast, to Quito in the interior, a distance of three hundred miles.

When the line was first opened, weeds grew so thickly on its right of way that in time the road-bed became as impassable as the virgin jungle itself. Gangs of men were forthwith sent out daily with machetes to hew down the dense growth.

Incredible as it may seem, weeds grow to almost impenetrable density in that tropical country, overnight. In three nights they will reach a height of from two to three feet, according to the plant. And in a week they rear their rank heads on a level with the top of a locomotive boiler.

Confronted with this condition, the Guayaquil and Quito Railway managers determined to wage deadly war on the enemy. Two years ago, in the heart of the swampy jungle near Guayaquil, where vegetation is more luxuriant perhaps than anywhere else in South America, they established a factory for the manufacture of weed poison, a chemical solution of arsenic and niter.

Then a special train was made up of engine, workman's car, and tank-car. The tank was filled with the weed-killer, as we fill an engine with water. On the front of the tank-car sprinklers were attached, as on a watering-cart in an American town.

Then, a year ago last January, the weed-killing train started on its first jour-

ney. The engine forced the train ahead of it through the veritable jungle that had spread over the right of way in the previous few days, the sprinkling apparatus hurling sprays to the front and on either side to a height of eight feet or more.

Now that "weed-killing train" runs every day, preceding the regular passenger-train, its work of destruction preventing the weeds from interfering with traffic.

"Manned" by Women and Boys.

Railroads run mostly by *boys!* That's what you find in Japan. The person from whom you buy your ticket is a boy, at the gate the ticket is punched by a boy.

The only guard you see on the train is a boy. In fact, nearly all station and train-hands who come in contact with the passengers are boys.

The employment of boys is necessary because half the railroad employees in Japan must understand English, so great is the number of English and Americans traveling constantly in the Island Empire.

In the class of people available for railroad service in Japan, the only ones who speak English are those of the younger generation.

Trains run mostly by *women?* That's what you'll find in Finland. In that land of higher education, where women have a hand in nearly everything, the passenger departments of the railroads hire women to act as conductors, porters, and train attendants.

With a friend I entered a train of the Finland State Railway, at St. Petersburg, *en route* for Helsingfors, the Finnish capital. A woman in immaculate cap and apron took charge of our baggage as we stepped aboard. She was the porter, middle-aged and grim, but thoroughly competent.

She showed us to our compartment in the sleeping-car. Then she made up our berths. Next she took our fur-coats and hung them in a closet provided for that purpose. That woman was a wonderfully efficient maid-of-all-work in that sweet, clean car. She had even placed a few flowers on the table in each compartment.

She was baggage-carrier, sleeping-car porter, and conductor; also caterer. In the morning she walked in on us without knocking, bearing a tray spread with snowy linen and glittering silver and pretty dishes—our coffee and rolls.

The whole thing made one wish that American railroad managers would follow the ways of the Finns and give us at least a few nice motherly portresses.

FIGURES FIGHT FOR STEAM.

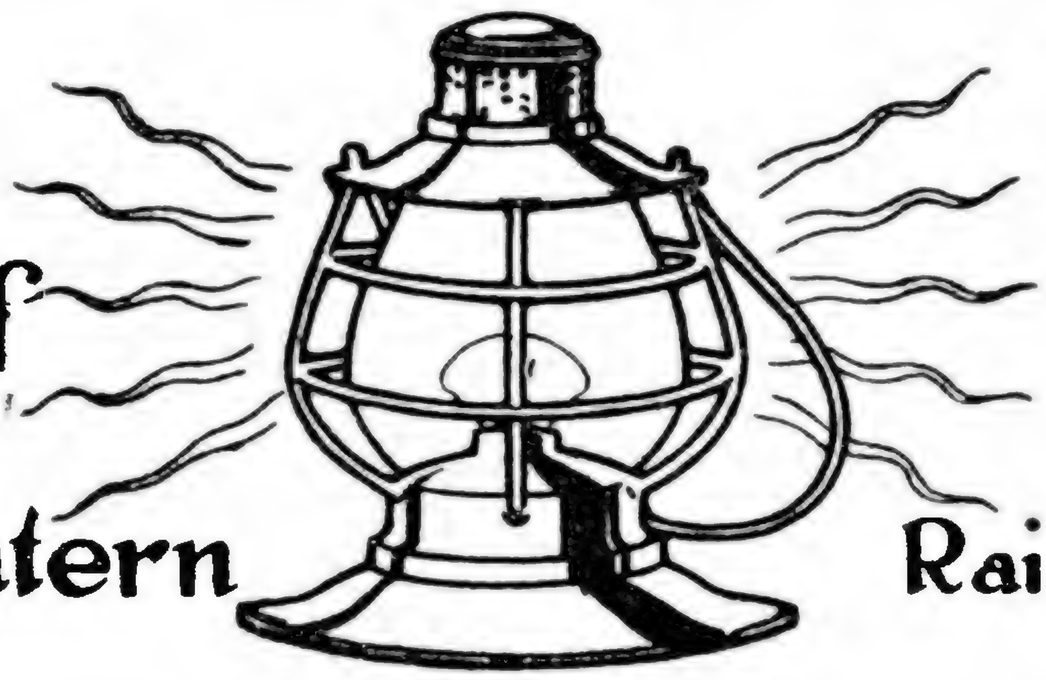
Some Statistics That Show the Impossibility of an Early Conversion To Electric Motive Power.

IF for no other reason than the cost, it is not likely that electricity will be replacing steam as a motive power on our railroads to an appreciable extent for very many years. In the *World To-Day*, Clyde Fennimore Burns presents figures showing the estimated expenditure of converting every mile of steam railroad in the United States into electrified track, and these figures foot up to a billion and a half dollars, a staggering total for roads that already have difficulty in keeping pace with the normal demands of their traffic.

On the other hand, the same writer estimates that a tremendous economy would be effected by this vast outlay. The present operating cost for the movement of every piece of rolling stock in the country is fourteen hundred million dollars a year. This, he believes, would be cut to two hundred and fifty million dollars a year, thus saving the entire outlay in a little over a year, though, of course, that does not solve the problem of where the money is to come from in the first place, even if the success of long-distance running were assured.

WHAT'S THE ANSWER?

By the Light of the Lantern



Questions Answered for Railroad Men

ASK US!

W. E. M., Philadelphia, Pennsylvania.—We do not care to discourage you in the aspirations which you have formed, but the field is most unpromising at present. From your letter, which we have read with care, we gather that you are devoid of technical training, or shop experience of any kind.

This would preclude employment in the mechanical department of a railroad, except as an apprentice or laborer. You are evidently too old for the former, and would not be doing justice to yourself in the latter capacity. Although you may be fitted for a clerical position on the railroad, you should know that the pay is small, even after years of service. and the work is more exacting, with longer hours, than clerkships in other lines of business.

W. O. E. Garfield, Kansas.—(1) Illinois. (2) Pennsylvania lines.

J. F. G., Solsberry, Indiana.—Write "Railway and Locomotive Engineering," 136 Liberty Street, New York, stating what you want, and if they do not carry the book on their list they will get it for you.

C. A. F., Missoula, Montana.—It is possible to get a job railroading in Alaska at almost any time, especially at skilled labor. The pay is much more than in the United States proper for corresponding employment—at least twice as much—but you will find living expenses increased in proportion.

Write the manager or superintendent of the line on which you desire employment. The cheapest way to make Fairbanks would be by boat from Seattle to Skagway. We cannot say as to the pay of placer miners, as it varies tremendously with conditions.

H. T. R., Philadelphia, Pennsylvania.—We are unable to locate any champion in the line you mention. Why not write to the gentleman himself, and if he holds the record he will no doubt advise you?

PLEASE let me know what the chances are for work on the railroads of Cuba.

I am a telegrapher, locomotive fireman and engineer, and lineman, also bridge and structural iron-worker. To whom should I write in Cuba for information?

A. P. S., Randall, N. Y.

You seem extremely versatile, and if you can make good in any two of the above you should get a job without trouble. We would strongly advise you, however, not to go to Cuba unless in an executive position, and these, by the way, are hard to get.

There was a time when American engineers and shopmen had an opportunity to

do well in that country, but it was demonstrated to the satisfaction of the management that they were unreliable, and would not stick, so the policy was adopted of developing the native labor, and now you will find the latter doing as well as may be expected in practically all capacities. This, also, as you will readily appreciate, has had a cheapening effect on labor in general.

The principal railroads and their management are as follows: The Cuba Railroad, D. A. Galdos, manager, Puerto Principe, Cuba; The Cuban Central Railways, Norman B. Dickson, general manager, Sagua La Grande, Cuba; and the Cuba Eastern Railway Company, A. V. Sims, general manager, Guantanamo, Cuba.

I AM not skilled in any kind of work, but would like to know if there would be any chance to learn the machinist's trade with any of the Southwestern roads. Do you think I would be too old? I am twenty-five years of age.

J. T., Chicago, Ill.

You are entirely too old to enter as a regular apprentice. Your only chance to become a machinist would be to find some road where machinists are occasionally "made" from machinists' helpers by the master mechanic. The agreements in vogue between the machinists' organization and the railroads differ with localities and conditions.

On some roads the agreements read that only apprentices who have served four years at the trade will be considered as machinists; on others any man who works four years as a helper under the direction of competent mechanics may be considered a machinist, at the discretion of the master mechanic.

This official, however, is not likely to set up a helper if he has the full quota of apprentices. You might write to any master mechanic on the Boston and Maine, or the New Haven, about the opportunities for securing employment as a machinist's helper.

"A STRANGER."—Referring to your inquiry as to the practicability of an automatic switch, we cannot give any opinion as to its value, as your letter was unaccompanied by sketch or any other information.

F. J. DE G., Chicago, Illinois, and D. J., Foxboro, Massachusetts. — Freight brakemen are usually employed by the superintendent of the division, or by the freight trainmaster; passenger brakemen by the passenger trainmaster or superintendent. The proper age for applicants in either branch of the train service is between twenty-one and twenty-five years.

The pay varies according to the agreements between the trainmen and the various companies, but will average $2.25 per day of one hundred miles or less. Conditions are unfavorable at present for the consideration of applications in that line.

A. D. W., Cowan, Tennessee.—See answer to G. C. G., page 59 of June issue.

WHICH one has been known to make the fastest speed: the steam-engine or the motor-car?

(2) Which is the largest railroad in the United States?

W. R. V. S., White Horse, N. J.

(1) The gasoline motor-car.

(2) The Pennsylvania, with its subsidiary and controlled lines.

R. E. M., Pottsville, Pennsylvania.—The position of railway mail clerk is under classified civil service. Write to the United States Civil Service Commission, Washington, D. C., for particulars regarding dates of future examinations and localities where these examinations will be held.

The Federal officer in your city who advises in connection with civil service positions is probably the postmaster. See him or one of his assistants.

THE regular train carries two green flags, indicating another section following with the same rights. When the first section came along it displayed two white flags. Supposing there was another section following (a third), what classification flags would it display?

(2) What is the exact difference between an extra and a special?

(3) What is the road to superintendent of motive power?

G. A., Apalachicola, Fla.

(1) We have reproduced your question exactly as it was written in your letter, and would call your attention to an inaccuracy which might have been a simple mistake on your part: When a train is running in sections, the first portion is the first section, the second portion, the second section, etc.

In the second sentence of your question reference is made to the first section coming along with two white flags. We are of the opinion that you mean that the second sec-

tion displayed these markers, and if so there is no authority for this in any book of rules.

You say that this question applies to a regular train in sections. If so, the first section would display green for the second, the second for the third, and so on, depending, of course, on the number of sections. The final section would display no green flags; in fact no signals on the front of the engine whatever. If we have misunderstood your question, come again.

(2) There is no difference between "extra" and "special." Both terms apply to a train not shown on the time-table. It seems to be the fashion to call the latter a "special" if it is a passenger-train, while the wild-cat freight remains the "extra," as of old.

This is the only difference we can see. They both have to carry white flags, unless running as the section of some train; when the latter is the case the terms do not apply.

(3) Read the "Making of a Master Mechanic," in the December (1907) number of THE RAILROAD MAN'S MAGAZINE. It will point out the road to be traveled as clearly as anything we know of.

C. H. M., Wheaton, Illinois.—We do not understand your reference to electricity on the Southern Pacific. In regard to the chances for employment as electrician or lineman in the West or Northwest, it would be better for you to ascertain this by direct correspondence with the head of that department, generally the superintendent of telegraphs, on the line where you desire employment.

WHAT is the master mechanic's name on the Pennsylvania Railroad at Jersey City?

(2) What is the proper age and weight for a fireman?

(3) By studying in a correspondence school, does it help to get on the railroad?

C. H. S., Newark, N. J.

(1) There is no master mechanic in Jersey City proper. F. A. Smock, master mechanic, Meadows, New Jersey.

(2) See answer to last question in THE RAILROAD MAN'S MAGAZINE for May; also the "Making of an Engineer" in August, 1907, number. These will give you full information. Lack of space precludes an answer of sufficient length to be satisfactory.

(3) A correspondence school cannot teach the practical part of the profession, but it can and does impart information which you may demonstrate in practise, and which you may not be able to "pick up" by yourself for a long time. The help it would afford in securing a position would depend entirely on how the master mechanic or employing officer viewed the matter.

A. R. P., Wellington, New Zealand.—There are only isolated instances in this country where railroads instruct their men in first aid to the injured, but in the few cases which do exist it has been brought to a considerable state of efficiency.

On the large systems the usual plan is the following: At each shop the company maintains an emergency chest and has one or two men qualified to make the best use of its contents when occasion arises; a physician is always on call, and medical attention can generally be secured within a few minutes after an accident.

The railroads entering large cities have an arrangement with one or more hospitals, some maintaining beds for the care of those injured in the service. The services of the employees rendering first aid to the injured are entirely voluntary, and they do not profit thereby in pay, bonus, or promotion. Some few of the roads in the United States have elaborately fitted hospital-cars for use in connection with wrecks.

J. F. M., Orange, New Jersey; G. M., Tuyelo, Arkansas; G. P. K., Springfield, Massachusetts; W. L. T., Hillsboro, Oregon; and W. D. A., Owen Sound.—See answer to C. H. S., Newark, New Jersey, in this issue. At present times are dull on railroads in general, and there will be little chance to secure employment as fireman on any road in the country until normal conditions are restored.

C. F. P., Moshogu, Oklahoma.—See reply F. J. de G., etc., in this issue. The distribution of time-table folders is generally handled by the general passenger agents, although they are frequently in the hands of the advertising manager, if the road has such a department. We have no knowledge of white waiters in any dining-cars of this country.

B. J. E., Chandler, Oklahoma.—The best plan for you to pursue would be to set forth a clear statement of your qualifications and experience in a letter, which it is proper to make as long as you like, to the superintendent of telegraphs of the road under consideration. Positions in railroad

service, however, are generally attained through promotion, and we cannot recall an instance where a man was appointed directly to the office which you mention.

A READER, Boston, Massachusetts.—You seem to have no decided preference between telegraphy and firing. So far as pay goes, there is little choice at the start, but you are, no doubt, aware that when a fireman becomes an engineer the pay is much more than he might ever hope to secure as an operator. For the other points on which you desire information see reply to C. H. S., in this issue.

J. B. C., Reading, Pennsylvania.—The employment and pay which you have at present are far preferable to going West and taking a chance as an operator. The best plan would be to wait until it has been shown what the railroads intend to do in regard to the nine-hour law. We hardly think that when they are through with the readjustment there will be as many open jobs as many operators in the East believe.

M. E. T., Philadelphia, Pennsylvania.—Call on the division engineer of some railroad in your city, whose office will readily furnish the information desired. The pay and duties vary so much with different sections that we fear to answer here would only mislead you.

DOES the piston travel backward and forward in a locomotive cylinder the same as a stationary engine? Some mechanics claim that it does not, claiming that when running forward the piston never travels backward, but when the steam is admitted in the front end of the cylinder it pulls the whole engine, cylinders and all, forward, leaving the piston relatively still. I would like to receive some conclusive answer to the above inquiry.

W. O. H., Camden, S. C.

This question, like our old friend, "How the locomotive, rigid in the distance between its driving-wheels, rounds a curve?" will probably be discussed as long as railroading endures. Singularly enough, the view taken by the mechanics you mention is widespread, notwithstanding the evident fallacy.

The cross-head of a locomotive certainly moves from the front to the back end of the guides while the wheel, to which it is to all intents and purposes connected through the medium of the rods, is making a half turn, and returns from the back to the front end of the guides, and to its original position, while the wheel is making the other half turn to complete the revolution. Bear in mind that the progressive motion of the locomotive on the rails is entirely dependent on this action of the cross-head.

If any proof is necessary that this action exists, we might call your attention to the fact that the valves are so adjusted as to admit an equal quantity of steam at each end of the cylinder as needed, and the fact that four equally spaced exhausts occur with each revolution of the driving-wheels affords satisfactory evidence that each cross-head has made a round trip through its respective set of guide-bars, and that the steam has fulfilled its mission in each end of the cylinders.

E. J. K., Whitehall, Michigan.—We know nothing of the concern you mention beyond the information contained in its advertisement. Your proper procedure would be to write its manager for circulars and information about its scope. As a rule, a man eighteen years old is not physically able to perform the duties of a fireman or brakeman. Many roads make twenty-one years the minimum age for applicants.

C. F. A., Hudson, Massachusetts.—In all probability you will find that your age-claim will be investigated, especially should the employing official have reason to doubt the correctness of your statement.

WHAT do firemen get a day firing out of Los Angeles, California?

(2) Are these oil-burning engines as dangerous as some people say, about their boilers blowing up?

(3) What is the work of the fireman?

G. A. W., Penns Grove, N. J.

(1) Cannot say exactly, but it will be in the neighborhood of $2.35 per day, minimum, for a "day" of one hundred miles or less. As the majority of roads have runs laid out calling for a much greater mileage than one hundred before returning to the home terminal, the pay for the round trip would of course be very much more than $2.35. A fireman in regular service can make $125 per month, and an extra man in good times will make almost as much.

(2) No danger whatever. There is no difference when compared with a coal-burner, so far as the liability to explosion is concerned, as the factor of safety in boiler design is ample to cover the pressure allowed in either case.

(3) Regulate the flow of oil and the jet

to secure the best results. This takes the place of handling the shovel on a coal-burner, and, by the way, is vastly easier work. In all other details the fireman's work is the same as on a coal-burning engine.

W. R. S., Castlewood, South Dakota.—You will have to write us again, making your question more explicit. We are under the impression that you are seeking information in regard to photograph-cars maintained by railroads for the purpose of photographing their own scenery.

The Baltimore and Ohio, a scenic road, did quite an amount of this work at one time for advertising purposes, but we have not heard anything from it of late. There is, or was, a firm in Denver, Colorado, which made a specialty of this work and had a large business with many railroads.

WHAT roads supply passes to employees, and how long does one have to be in their employ to receive one?

(2) In what part of the United States is Spanish spoken more than English, while at the same time the work, such as in a locomotive repair-shop, is the same?

(3) Is Spanish worth learning, living always in North America?

C. B., DuBois, Pa.

(1) All roads furnish employees with passes, should their issue be justified by the requirements of the service. For instance, on a great many roads all trainmen are furnished with quarterly passes immediately on employment, as their work necessitates considerable deadheading at times to catch their trains, and frequently there is not time enough to apply for a trip-pass at the superintendent's office.

Shopmen are not furnished with quarterly or annual passes. If occasion arises to send them on the road, the master mechanic generally has in his office one or more "John Smith" passes which he can loan to the man going out. Of course all officials are furnished with passes from the fact that their duties call for much riding over the road, and in recognition of their position.

(2) The English language is spoken universally throughout the United States in railroad circles. You will hear some Spanish in the far Southwest, among the Mexican laborers in the various roundhouses, but unfamiliarity with it need not prove any handicap.

(3) If opportunity permits, any foreign language is worth learning. As your question takes in North America, we would advise you to acquire Spanish if you have a chance. The Mexican Central Railroad recently issued an order instructing all American employees to learn Spanish within six months.

You would find it quite difficult to get along on any railroad in that country without a slight knowledge of it, as the firemen, brakemen, and the majority of the shopmen are Mexicans.

WHAT railroad in the United States runs a passenger-train on its own rails the longest distance?

E. P. H., Atlanta, Ill.

The Atchison, Topeka and Santa Fé, from Chicago to San Francisco.

T. J. P., Oakland, California.—About $2.25 per day as a minimum for both firemen and brakemen. Chances for employment depend on the volume of business, irrespective of the seasons.

G. H.—It is generally considered that the muffler on the exhaust reduces power and consequently speed about twenty per cent, due, of course, to back pressure. Each cylinder exhausts directly into the atmosphere and the cylinders are not compounded.

O. E. W., Auburn, New York.—(1) The Buffalo, Rochester and Eastern, from Troy to Buffalo, 286 miles surveyed. R. D. Gillett, President, Westfield, Massachusetts.

(2) The Grand Trunk Pacific has about one thousand six hundred miles completed. The chief engineer is B. B. Kelliher, Montreal.

(3) Working conditions are practically the same in the Dominion of Canada, but wages are somewhat lower than in the United States. No license is required for work, if they see fit to employ you.

(4) Engineers and firemen in Canada receive, approximately, $3.50 per day for the former, and $2.00 per day for the latter.

(5) The proposed line of the Pittsburgh, Binghamton and Eastern is three hundred and ten miles; branches, forty-seven miles. Construction at this writing is about thirty miles graded and ten miles of track laid. The chief engineer is H. A. Schwanecke, Canton, Pennsylvania.

C. P. S., El Paso, Texas.—We regret to advise you that there is practically no chance whatever for your obtaining employment in your profession. The only instances we can recall where engineers have continued

in service after a disability similar to the one you mention are where their own road has taken care of them, and these cases are rare.

J. R. P., Du Bois, Nebraska.—Your age, fifteen years, would preclude any employment in connection with a railroad, with the possible exception of messenger-boy. If you were a year or two older you might get on as apprentice, but there is nothing for you now.

A. C. R., Jersey City, New Jersey.—Have your device patented; then, if it is to be used in connection with rolling-stock, cars or locomotives, submit it to the superintendent of motive power of any railroad.

R. M., St. Louis, Missouri.—(1) This road has been in operation for some time. Our records are not entirely clear regarding the exact date of completion.

(2) Practically all of the engines are of the simple expansion type.

(3) Address F. E. Davisson, superintendent of motive power, Los Angeles, California.

I HAVE been informed that the New York Central uses the apprenticeship system in its repair-shops. To whom should I apply for a position?

A. P. Y., New York, N. Y.

File application with J. F. Deems, general superintendent motive power, New York, New York.

ON what road and what division are firemen needed at present?

(2) What books, in your estimation, are the best published on the locomotive?

(3) Where can these be procured?

B. H. B., Mo.

(1) There is a general depression in railroading at present, and this condition is reflected on the extra boards in the roundhouse terminals. The majority of roads at this writing have more men than they can use, owing to many regular freight-trains having been cancelled on account of poor business, their crews being laid off in many cases. It may be said generally that firing would be an unprofitable field on which to enter until normal conditions are restored.

(2 and 3) The list is so long that space forbids reproduction here. Forney's "Catechism of the Locomotive" has stood the test of time. Sinclair's "Locomotive Engine-Running and Management" is a standard work.

For the price of these and a full list of similar works, address Locomotive Engineering Publishing Company, New York City.

W. L. S., Tampa, Florida.—(1) They should have a "31" order, giving them right of way over No. 16. At all events, under such conditions as you represent, they should not, in our opinion, leave without orders.

(2) He must run no less than thirty minutes late between the points specified in his orders.

(3) The train cannot proceed until engine No. 80 arrives, unless under orders. If, as you say, a second engineer were called, he could not proceed without orders, the train being an extra.

E. T., Juliaetta, Idaho.—Address H. T. Peyton, master mechanic, La Junta, Colorado; E. H. Harlow, master mechanic, Albuquerque, New Mexico; or W. A. George, master mechanic, Winslow, Arizona. Transportation from Chicago to Winslow is about fifty-four dollars. See answer to B. H. B. in regard to books dealing with railroading in general.

R. M., Blandinsville, Illinois.—Approximately eight thousand miles. The remainder of your question cannot be answered, as very few outside the inner circle know the interest which this road has acquired in other lines.

F. H. B., Whitney's Point, New York.—The so-called eight and nine hour law for telegraph operators is merely a provision limiting the hours of labor, applying particularly to operators engaged on train orders. We have previously commented on this law and the chances which it will give operators in this department.

IF a train was approaching a street crossing at a moderate speed, and the fire department was coming down the same street at the same time, and both had ample time to stop, which one has the right of way? E. J. F., Grand Rapids, Mich.

It has been ruled that legally the fire department has the right of way. Conditions, however, might be such that it would be inadvisable to try to stop the train, as it might halt directly on the crossing, causing further delay. Under ordinary conditions the judgment of the crossing-tender would be to drop the gates and let the train go.

THE MOVING BOULDER.

BY ARTHUR HOPE.

Dark Mystery on the Summit of the Kopje and Black Horror at the Foot.

SOME years ago I was stationed at Umfundisweni, in the eastern territory of Pondoland. My chum and partner, Joe Allington, was with me, and we had to decide the momentous question of whether it was good enough to risk our increasing profits in putting up a permanent store.

I don't think there was an honest trick or trade in the whole of South Africa to which, at one time or another, old Joe had not put his hand. One look into his eyes was sufficient to tell the veriest cynic that here he had a straight man to deal with—and a mighty hard nut to crack.

As a rule, Joe worked the western part of Pondoland, while I took the eastern. But we had prospered so well that we were thinking of starting several permanent stores along our general route. So, on the trip of which I write, Joe had come with me, in order that our decision might be a joint one.

We soon settled on a location, and, after a week's record trade, found our wagon-load nearly depleted and our cattle kraal the richer by about one hundred and twenty head, cows, bullocks, and tolies, mixed.

These Joe arranged to mob down to Durban and realize on; then he would meet me there, when I came down to load up. It was on a Thursday night that he set off. He always would start by night, if he only trekked a mile or two. He would outspan, he said, for the following night at Ronjen's, and go on again early in the morning.

Ronjen's was a nondescript kind of a place, half inn and half store, that lay just over the Griqua border, near what had once been a military outpost. The soldiers, however, had been withdrawn, and the inn—a ramshackle, old wooden building—presented a very dilapidated appearance. Hans Ronjen himself was scarcely a dandy. He had the shallow, flabby face, dirty yellow hair, small, malevolent eyes, and loose, clumsy lips, with cheeks like pouches, that one finds occasionally among the Boers of the uplands. He was a big man, slow in gait, clumsy in manner, surly and morose in temper.

During my various treks to and fro I had naturally seen something of him, but as he seemed to deteriorate on acquaintance, I soon got out of the habit of even stopping at his place. The Pondos detested and feared him, and no threat nor bribe would induce them to go near his house save in the company of several friends, each with his bunch of assegais.

At times I would amuse myself by telling my boy that he was to go up to Ronjen's for me.

"*Ai! In koos!*" he would explain, his eyes wide with alarm, till, seeing that I was joking, his face would break into a grin, and he would vanish, hugging himself as if vastly pleased with the joke.

The only explanation which I could ever get for this fear was the vague excuse:

"He very bad man, *in koos.* Make plenty people *pellalu.*"

The reputation of being addicted to wholesale murder or manslaughter, which these words conveyed, I put down to mere superstition, knowing how rumor grows on the Pondo tongue.

When Joe started off he took with him two boys from the district to help him with the cattle. He would not take more, saying he could get them cheaper and

better for short treks along the road. Of course, we had all the beasts branded, so that we did not fear losing any, even if one or two should stray.

It was about a fortnight later, after outspanning at the stores and sending the teams out to pasture, that I sought my friend at the Clarendon, then the coziest of the houses in Durban. To my utter amazement, not only was he not there, but he had not been seen since he and I had left together on the up trip. As he would have to go by the same road as that which I took myself, and as I certainly had not passed either him or the cattle, I was quite at a loss.

In leaving Ronjen's on my way down, he had volunteered the remark that it was a fine herd I had sent down, adding:

"Funny chap, that pard of yours—got plenty of money, I should think, eh?"

I had answered shortly, satisfied that, having passed Ronjen's, he had chosen the best route, for along the coast at that time of the year the grass was very rank for cattle. I resolved to wait a day or two and see if he turned up, thinking that perhaps he might, while searching for stray cattle, have mobbed the rest into some kloof, where they had escaped my notice.

The more I thought of the matter, however, the more uneasy I became. It struck me, too, that I had seen remarkably little trace of so large a mob, considering that they were only a few days ahead of me. With this thought in my mind, I rode off to hunt up my "leader"—the boy who leads the team of bullocks.

He was an intelligent chap, and had been with me for some years. Familiar as I was with the Kaffir instinct for recognizing cattle, his amazing and unerring recollection of any beast on which he had once set eyes astounded me.

"Dingo," I said to him, when I found him in the act of taking snuff after emerging from a vile "pub" in the native quarter, "did you notice which way the old *baas* went with the cattle? Did he come the way we came?"

"*Ai.*" he drawled, with a stare of surprise at my blindness of so elementary a fact. "Spoer come as far as Ronjen's, *baas*. After Ronjen's, no spoer. No beast come Umzimkulu road, long while before us."

"Are you sure?" I queried, now thoroughly alarmed.

"*Koos.*" he answered, not without an expression of disdain, and, taking a mighty pinch of snuff, eyed me the while with the air of one who waits to hear more, but is restrained from asking by his dignity.

"Dingo," I said, determined to take him into my confidence, "Baas Allington has vanished, and with him the cattle—twelve tens of cattle, Dingo."

"*Wan!*" ejaculated Dingo, the whites of his eyes rolling in an alarming manner.

I looked at him, wondering, in a helpless kind of way, what I had better do first. Dingo gave me a cue.

"And the boys?" he queried. "Panda and Impal, where, then, are they?"

It had been agreed that on reaching Ronjen's these boys should return to their homes.

"Dingo," I said, "we must find the *baas*. Go and get the horses, the best ones, and saddle up now. Bring them to the foot of the bridge, and tell no man where we go."

Suspicion of foul play had become strong in my mind. I called on the captain of the police and told him my story, and gave such information about the cattle as I could remember.

"We'll do what we can for you, Mr. Langton," the officer promised. "But, beyond watching for the cattle, making inquiries our side of the border, and forwarding a special to the other side, I don't see what we can do at present. You are going back? That's the best move. Let us know what you find out on the spot, and if you want our help."

It was with a heavy heart and a dull foreboding of evil that I took my way to the rendezvous, calling, as I passed, at the banker's, and leaving a letter at the hotel for Joe, in case he should turn up; though, indeed, I felt that it was a vain hope.

Two hundred and sixty miles is a long ride to face, but we rode steadily and unsparingly, and on the third morning, after sixty hours' traveling, night and day, we found ourselves within appreciable distance of our journey's end.

We stopped at a farm some way off the track we had taken going down to Durban, having made a short cut through one

of the numerous passes in the range that at this part towers up from the veldt. As we off-saddled, I felt Dingo touch my arm.

He seemed in a violent state of suppressed excitement, but he waited till our host's attention was diverted. Then, pointing in the direction of the paddock, he said:

"Look, *baas!* One, two, three, four tolies, same as Baas Allington took away!"

"Are you sure?" I asked, for to my eyes and memory there came no conviction.

"*Wan!*" he ejaculated, with a short, contemptuous laugh. "I can smell them, my father," he said.

I at once drew the attention of Brodrig, the owner of the farm, to the tolies Dingo had pointed out to me, asking him how he came by them.

"Oh, those!" he replied promptly. "I bought them a fortnight ago from a chap who came through here with a mob of about one hundred. A white man? Yes. Understood he had bought them from you and was going to trek up beyond the Vaal with them. What was he like? Well, I didn't take much stock of him—ordinary kind of Dutchman, long, slouching chap, with a big sandy beard."

"It wasn't Ronjen, then?" I asked.

"No," he replied; "but, now you mention it, I remember seeing Ronjen with him about two hours before, as I was rounding up some strap from the kloof over there. Why? Anything wrong?"

"Everything wrong," said I gloomily. "Allington was to have brought these cattle to Durban. Neither he nor the beasts arrived. And now he is missing, and I find the cattle gone."

"Oh, you'll find him all right," said Brodrig. "The Dutchman who came through here had Allington's receipt—for I wouldn't buy till I saw it. I'll ride over to Ronjen's with you, if you like, and see what he has to say on the matter. Better have some breakfast first, though."

I readily assented to both of his proposals. The more I thought of it, the more fixed became my idea that Ronjen could explain the mystery. It was evident that he knew of the sale of the cattle, yet when I had gone through with the wagon he had spoken as if he was ignorant of it.

It was not more than an hour's ride to Ronjen's, and four or five to my place. Twenty miles before we reached Brodrig's I had changed my horse for another which I always kept at Wright's farm. My new mount was an old stager that knew the road well.

Ronjen's inn lay on the top of a large kopje. On three sides the ascent was gentle and lay through a dense bush, mostly of thorn, with here and there a huge yellowwood tree rearing its head a hundred feet above the green frondage of the thorns.

On one side, however, that which overlooked the direction of my new store, the cliff ran sheer down—a grim *kraanz* of some hundred feet in depth.

In the angle formed by this eastern side and the nearest northern declivity down which ran our road homeward to Omfundisweni was a dismantled bastion, where at one time the imperial guns had overawed the tendencies of the Pondos to aggressive raids in the troubled neighborhood.

To those unacquainted with the path the spot was a dangerous one, as there was nothing save one huge boulder, lying directly in the track, to prevent any one who had wandered out of the trail from going headlong over the edge.

The track, however, was well defined, and to those accustomed to ride at night it would have been difficult to lose it.

It had become the custom to warn travelers that should they come across the boulder they must retrace their steps till they struck the junction, and there take the other track.

As we were yet some way off the foot of the kopje, out of the sky there seemed to sweep a cloud of gray mist, swathing and wrapping the whole scene in a dense, damp fog. Riding in Indian file, we stumbled slowly up the path after Dingo, relying solely on voice and touch to keep together. To see was utterly impossible. The native has the instinct of a leopard in the dark, and Dingo never faltered at a single turn, rough and rocky though the track was.

I was thinking to myself that we must be somewhere near the summit, when Dingo suddenly stopped. The next mo-

ment he was by my side, his trembling fingers touching my arm, his teeth chattering as with some sudden terror.

"*Baas,*" he said in terrified tones, "too much bad devil work here. Look, *baas!* Look!"

I tried to follow the direction of his shaking finger. Suddenly out of the mist there loomed up in front of us a huge boulder. It seemed to be moving directly toward us, on a level plane, silent, smooth, inexplicable.

"Man! What's that?" said Brodrig, catching at my arm.

Suddenly a wild idea flashed across my mind.

Imposing silence on my companions, I dismounted and, leading the horses off the track, waited. In another moment the boulder had swerved away to the right and was lost in the mist. Brodrig was on the point of speaking, when I clapped my hand on his mouth and whispered:

"Not a word! Listen! And keep your horse still!"

What instinct, what strange feeling, was it that prompted me to listen? I had heard nothing, and yet I felt convinced that the brink of discovery was there at our feet. The minutes, swathed in that burden of gloom—denser, blacker, more impenetrable than the darkest night—seemed like hours.

Yet it could not have been more than three or four minutes before I felt Dingo's fingers close tightly on my arm and heard his tongue give a sharp warning click. Steps from the right were coming toward us—steps and voices.

Lower and lower we crouched, as if the gloom were not dense enough to bury our shadows there among the foliage. Right in front of us, so close that by stretching out my arm I could have taken him by the throat, stood the Dutchman, Ronjen, talking in his own tongue to a companion. Listening there, every word he said was distinct to us.

"You think they will fall into the trap?" said a voice.

"I think nothing. It is sure," replied Ronjen; "and that accursed *rooinek* will sleep with his partner. There is no one to ask questions, and there are goods at Umfundisweni and cattle at Brodrig's. We can trade these and trek."

"But, surely," the voice objected again, "they will see the difference in the tracks."

"A thousand curses!" answered Ronjen angrily. "Have I not told you? Who can see the road in this thrice-blessed mist? They think they are on the right road. Good! They reach all of a sudden a big rock, which blocks them the way.

"'*Mein Gott!*' they say, 'what a preservation! We have taken the wrong road to the fort. We must return.'

"Good! They return. They find the other path; they think, now we are all right, and canter on and canter on, and then there is a big cry all together, which the blessed fog muffles, and then the beautiful silence once again. Once, twice, thrice, has it not succeeded?

"The German, Langberg? The Scotchman that drank and swore—how he drank and how he swore!—and last, that little man, that Allington. A thousand pounds! Eh, my friend, that is good, is it not?"

There was something peculiarly terrible in listening to this voice in the darkness. Every word was distinct, yet so muffled that each syllable was, as it were, a whisper wrapped in cotton. And the long, low, unctuous, muffled laugh which gurgled horribly over the loose lips sent a shiver down my back that I can remember to this hour.

I kept tight hold of Brodrig till they had passed on. When he told me that the man with Ronjen was the one who had passed a fortnight ago with the cattle, I nodded in silence. Whispering to him, "Tether the horses, and get your gun handy and follow me," I dropped on my hands and knees for a few minutes, rummaging about in the path. I soon found what I wanted—a tram-rail! For when I saw that boulder moving, the whole plot had flashed on me. In the days of the old fort a couple of rails had been laid along the flat of the plateau from the *kraanz* to the northern road.

Ronjen had turned these to account to fake the tracks—removing the boulder on a low lorry from the *kraanz* to the track, so that travelers might mistake the wrong for the right road and ride over the precipice to their doom and the enrichment of himself.

As I thought of poor Allington, I registered a mute vow of vengeance. The first thing to do was to verify my suspicions. Evidently Ronjen was not expecting us so soon. Taking to horse again, I pushed forward, till in front of us loomed again the slowly moving boulder. Riding round it, we came in sight of the bullock-team which drew it, rode in suddenly on the two boys leading, and collared them before they had time to say a word.

Their story was soon told. The Drakenberg *baas* had come in that afternoon and talked to their *baas*. Then both had saddled up and seemed about to go away quickly, as if they were afraid. But when Baas Ronjen had seen the mist, he had laughed, off-saddled, and said:

"No, the *rooineks* shall ride instead."

Then he had sent for them, and told them to take the boulder round.

"How did you move the boulder?" I asked them.

"That way long time, *baas;* always on cart."

We took the boys with us for safety, and left them securely tied up and gagged in the bush, promising to return for them. Turning the bullocks loose, we rode down the hill into the plain, then, turning sharp to the right, came, after an hour's rough ride, to the base of the *kraanz*. Here everything was clear; only up above the dense cloud still blotted out the summit.

We had no means of knowing the precise spot at which the path above debouched, and were riding somewhat aimlessly, seeking some clue, when an exclamation from Dingo brought our eyes to the ground at his pony's feet.

There lay the skeleton of what had undoubtedly been a horse, and that at a recent date, for, though well picked, several of the huge vulture crows that abound in that part were still hopping around.

To Dingo, however, there was evidence of a more positive character. He pointed somberly to the tail of the animal, where the long hairs still lay matted on the ground.

"Baas Allington's," he said gloomily.

I did not contest his statement. I felt that he spoke from conviction.

"To cover," I said shortly. "We must not be seen here."

We were none too soon in seeking the shelter of a tiny ravine, whose wooded slopes and plashing watercourse afforded protection against both sight and sound. Treading almost in our tracks, rode the two scoundrels we had so narrowly escaped. But how were we to secure them?

They both seemed well armed, and the chances were equal. Dingo's eyes glittered as he pointed at them, then lovingly stroked the barrel of my rifle, his face assuming a look of consternation which at any other time would have been amusing when he saw me shake my head.

It was evident that the Dutchmen had a scheme in mind. They did not pause at the skeleton of the horse, as we expected, but, dismounting, warily approached a spur that ran out into the plain a little beyond us. Here they paused to deliberate. Finally they skirted the spur and vanished, apparently into some opening in the cliff.

"Now," said I.

We sprang out and dashed across the intervening space, and in a few seconds were standing, Dingo and I on the one side, Brodrig on the other, of a dark-looking hole, just large enough to admit of one man's entrance at a time. From the inside came a low muttering, through which every now and then could be heard a sound like a moan.

Suddenly the voices grew nearer, and the strange Dutchman's words came to us:

"I will go and hobble the horses. Then I will come back, and we will give him his last chance."

I looked at Dingo to impose silence. His eyes were like little chips of wood in the center of a blazing fire. Then from the hole the shaggy head and broad shoulders of the Dutchman appeared, bent double to avoid the jagged scarp of rock above. Brodrig and I had our hands on him in an instant, but Dingo was quicker than either of us.

Before we could realize what he was about, there was a glint of steel, a shock, a spurt of blood, and the man hung, a limp and lifeless body, in our hands. Dingo's assegai had severed the spine at the nape of the neck, penetrating a foot beyond the throat.

"Wan!" ejaculated Dingo, as he with-

drew his blade a moment later, when we had dragged the body out of sight of the cave. It was horrible, but, after all, justice had been done by the blow. Still, when I found him again at my elbow as we resumed our positions at the mouth of the cave, I took occasion to remind him, with my rifle butt in the pit of his stomach, that his services were not required this time.

Balked of fresh prey, he withdrew, as I found out later, to gloat over the spoil of his prowess and revile the stricken corpse with taunts beyond the imagination of one who knows not the aptitude of the Pondo tongue in dealing with questions of ancestry and heredity.

The muttering inside was still audible, though less distinct. Finally silence reigned, broken every now and then by exclamations of impatience in Ronjen's heavy voice.

"Will the fool stay till night?" he muttered to himself, coming to the entrance. As he stooped down, as his companion had done, and took one step forward, his eyes fell on the new blood reddening the stones at the entrance. He would have sprung back, but he was too late.

Our hands were at his throat and on his wrists. In a moment he was outside, flat on his back, and Brodrig's knee grinding viciously into his neck, as I lashed his hands and hobbled him, wrist and knee, ankle and throat.

Never shall I forget the livid look of fear on the fellow's face as we turned him over in the sunshine. Dingo, calm, impassive, emotionless, stood by, watching him as though he were a cabbage, taking snuff the while.

"Now," said I, "for the inside of the cave. Dingo, if that fellow stirs, put your assegai through his hand into the ground."

Dingo grinned a ghastly, gleeful assent as we turned and entered the cave. At the far end was a kind of wall, and, as we approached, a voice, weak but distinct, rang out.

"One step more, and you are dead men!"

I think I went crazy when I heard that voice.

"Allington!" I yelled. "It's Allington!"

Brodrig tells me I went at that wall, tearing it down with my nails like a mixture of a madman and a wildcat. Anyhow, it didn't take us long to get at him. Nor were we any too soon. He had lived for nearly three weeks on a bit of biltong and such foul water as there was in his cave.

His story was this. He had met the Dutchman at Ronjen's, sold him the cattle, and started back that same night to meet me. Ronjen had seen him on his way. After parting with him, he had spurred his horse to a canter; suddenly a blast of cold air struck his face, and his horse vanished over the face of the cliff. Allington flung himself off at the brink just in the nick of time.

"You don't catch this old nail jumping fences of cold air on a dark night," he observed to me with a wink.

He had found his way to the bottom of the cliff to recover his wallets and his gold, but was disturbed at this juncture by the sudden attack of the Dutchman and Ronjen. He fled, stumbled into the cave, and had been a prisoner ever since.

"And," he wound up, "if they'd had the spirit of a fly in them, I'd have been there now. But they didn't dare smoke me out. Where is the vermin?"

When he saw the Dutchman he looked solemnly at Dingo, who grinned and thereby earned the benediction of a sovereign, which Allington presented him, saying, as he patted him on the shoulder:

"Good boy! Good boy!"

Well, that was the end of Ronjen. There were no magistrates in that district in those days, and we gave him the choice of a bullet or the nearest native chief.

He pointed to the rifle, and I put it into Dingo's hand without a word. And so Ronjen set out on the trail of his partner in crime.

News From the Front.

Human Muscle and Compressed Air and Steam and Dynamite Preparing the Way for Civilization Yet to Come.

CANADA THE PATHFINDER.

Another Example of How the Dominion Creates Commerce and Population Instead of Waiting for Them.

STILL more of the vast wilderness of Canada is to be invaded and conquered and brought into the service of mankind by the railroad army. A standard-gage road is to be constructed through British Columbia and the unorganized section of Assiniboia which will open up a district practically unknown and uninhabited.

The road will be known as the Port Simpson and Churchill. It will be approximately sixteen hundred miles long, connecting these two ports, the former of which is on the Pacific and the latter on Hudson Bay. The original capital of the company will be one hundred million dollars.

Among other things, construction of this road means the provision of a short route between Europe and the Orient, for as soon as the Hudson Bay branch of the Canadian Northern is finished, a line of steamers will operate between Fort Churchill and Europe. Besides this the route lies through a country exceptionally rich in minerals.

GATEWAY TO LOS ANGELES?

Railroad on a Private Ranch That May Be a Feeder for the Western Pacific.

WORK has been resumed recently on a railroad which will probably have a greater importance in contemporary railroad history than its length would seem to warrant at first glance. This is the road known as the Malibu Ranch Railway, passing through the great Malibu ranch in California.

The Malibu road has been building for some years from a point near Port Los Angeles up the coast for a distance of about forty miles. The Malibu ranch is part of the immense Rindge estate, the sole owner of which is Mrs. May K. Rindge, and it has an ocean frontage, absolutely unbroken, for over thirty miles above Santa Monica.

As a matter of fact, however, the importance of the road lies in the undenied statement that in the Malibu Ranch Railway the Western Pacific will find its entrance into Los Angeles. Much keenness has been exhibited by the various coast railroads over the possible entrances into Los Angeles, and more than usual secrecy has been maintained as to the ultimate gateway for the Gould road.

RIVAL SOUTHERN PACIFIC.

New Short Line That Will Cut Eighty Miles Off Distance Between San Francisco and Los Angeles.

A SMALL but very important project soon to be begun is the construction of a short-line railroad between San Francisco and Los Angeles. This road will be more than eighty miles shorter than the Southern Pacific route between the two cities, and will undoubtedly be a strong rival of the larger system.

The route, for obvious reasons, is being kept secret until all the legal preliminaries are finally arranged. The capital is to be two million dollars, with provision for increase if necessary. Of this, four hundred and forty-one thousand dollars had already been subscribed in the early part of March.

While the motive power has not yet been decided upon definitely, it is likely that it will be electricity, and that, with the aid of powerful electric locomotives and the shorter distance, three hours will be cut from the time between San Francisco and Los Angeles. Also, the rates will probably be some thirty per cent lower than existing ones.

The articles of incorporation cover the

broadest possible ground and provide that the company "may operate ferries and steam and sailing ships and lines, and own ships, vessels, wharves, piers, docks, etc.; also that it may acquire leases, franchises, rights, and other similar property, operating with either "steam or electricity, gasoline, or other motive power, for the transportation of passengers, baggage, freight, mail, express, or anything else."

The president of the company is Captain John Cross, and the chief counsel Walter F. Hart. Headquarters will be at Los Angeles.

OHIO'S BIG TROLLEY ROAD.

Lima and Toledo Runs from North to South, and Threatens Through Traffic of Steam Roads.

WHEN the gaps on the Lima and Toledo Traction Road are closed, about the middle of this year, there will be a complete line of traction service from Toledo to Cincinnati, the entire length of the State of Ohio. This property has been in course of construction for several years.

There is now a gap of forty miles between Bellefontaine and Lima, and another of about thirty miles between Deshler and Waterville, near the northern end.

It is the intention of the Schoepf syndicate, which controls the system, to run "limited cars" the entire length of the route, including sleepers for night runs, and to enter into active competition with the steam roads. The grading is finished for the whole distance.

RUNNING TO RAWHIDE.

What Is the First Thing an Enterprising Mining Camp Seeks? Answer: A Railroad.

RAWHIDE, the new Nevada mining town, is to have a railroad, and have it in a hurry. The road, which is to be constructed by a company operating under the laws of West Virginia, will be twenty-eight miles long, running over the level sage-brush country from near the north end of Walker Lake. At this point it will connect with the Southern Pacific.

It is to be called the Rawhide Western Railroad, and if the hopes of the promoters are realized it will be in operation by the time this paragraph appears in print. The estimated cost is between three and five hundred thousand dollars. The engineer in charge is the same one who built the Tonopah and Goldfield Railroad.

IN MEXICAN TERRITORY.

How the Railroad Czar Plans to Stretch His Lines Farther into Mexican Territory.

IT is reported that E. H. Harriman has completed plans for the construction of a railroad the entire length of the peninsula of Lower California. The route surveyed lies between two ranges of mountains for more than five hundred miles, and from there on it skirts the Pacific coast all the way until it reaches Cabo de San Lucas, a small town at the tip of the Peninsula.

The road will be twelve hundred miles in length, and among other points it will touch the bay of Magdalena, the rendezvous of our fleet recently. Construction will begin as soon as possible; in fact, the first order for steel rails has already been placed with a Russian firm, calling for six thousand tons.

It is stated that large orders for cross-ties have been placed in Japan, Mexico, and British Columbia. According to present plans, work will commence simultaneously at the northern and southern ends of the line.

NEW TRANSCONTINENTAL.

Guatemala Adds to the List a Road of Wonderful Engineering Difficulties and Achievements.

WITH the completion of the Guatemala Transcontinental, another road from ocean to ocean has been added by the Central American states. Sir William C. Van Horne has been connected with the construction of this road, and it is stated that not in all the length of the mighty Canadian Pacific was such difficult railroad construction work met with as in the building of this tiny transcontinental, two hundred and fifty miles long.

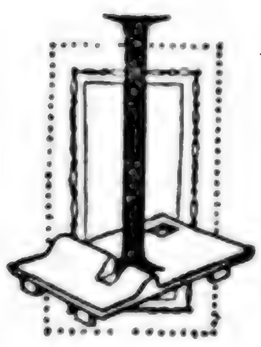
With the exception of the mountain-climbing railroads built by Henry Meiggs over the Andes, already referred to in this department, this road is said to be the most marvelous achievement of railroad building in the Western Hemisphere.

The road runs from Puerto Barrios, on the Gulf of Honduras, to San José, on the Pacific, with one or two branch lines. At Escuintla it connects with the Pan American, but does not operate in connection with that road.

Observations of a Country Station-Agent.

BY J. E. SMITH.

No. 9.—Memories of the Dear, Dead Days When Railroads Ran by Good Luck and Guesswork, and Examinations Were Unknown.



I AM developing a fondness for reminiscence. I find a pleasure in recalling the faces and events that filled the days of my early railroading twenty and twenty-five years ago, when a train was like a bronco, and was moved only by strange oaths and savage prods; when old "Si" Moon, "Captain" Knell, and George Mann could be heard above the exhaust of the engine, the clang of the bell, and the roar of the train, commanding and directing like steamboat captains, and in language that any deep-sea buccaneer would have been proud to have possessed.

George Mann ran the local freight—so much a trip—no overtime. Often he would go out in the spring, and later in the summer he would telegraph for his winter underwear for use on the return trip.

We were not examined for defects of vision or disposition. If we did not know red from green, no one knew we didn't. We were not asked to shut one eye and read a section of Gibbon's "Decline and Fall," nor designate capital letters of all sizes at twenty paces, nor pick out pink, green, and yellow yarn.

No one questioned our morals. We were all tough alike. A brakeman wore spring-bottom pants, and swaggered with daring and bravado like a sailor on shore-leave.

Within the last twenty years there have been changes—changes in manners, in morals, and in character. We have become fairly decent.

"Jim" Burwick was one of us in those days. Jim is a great evangelist now, and is known for his missionary work among railroaders all over the United States. When I knew him first he was running a train on the Pan Handle out of Chicago.

Jim could not

I AM DEVELOPING A FONDNESS FOR REMINISCENCE.

read his title clear in those days. He needed an interpreter. He did not use adjectives or adverbs. All qualifying words were the unmentionable and expurgated ones.

Swearing is a fine art. Some men do it gracefully, and actually polish a conversation with it. Some are awkward. Some are vile and offensive. Jim's profanity was mellow and expressive.

He is not a six-footer, but he spreads out well in every other direction. He talks with a half-closed eye, in a slow, deliberate manner, and in heavy guttural tones that jar things from the wall.

In his days of sin Jim's abhorrence was decent clothes. It was always something of a mystery where he found the garments he wore, as he never appeared in anything unsoiled or untorn.

"Cleanliness is next to godliness," and Jim was then staying as far away from either as he could get. When a coat or vest got so full of holes and grease that no one could touch it without gloves, Jim would begin to take pride in it. He was a sorry and dilapidated specimen, and received the badinage of his fellow trainmen with an innocent indifference.

They tell this story on Jim. One day, in coming out of Chicago, he walked over his train from the engine to the caboose. About half-way over he looked down between the cars and saw a bewhiskered "Weary William" of the old-school, tomato-can variety—the type that is caricatured by the cartoonist, but seldom seen in the flesh.

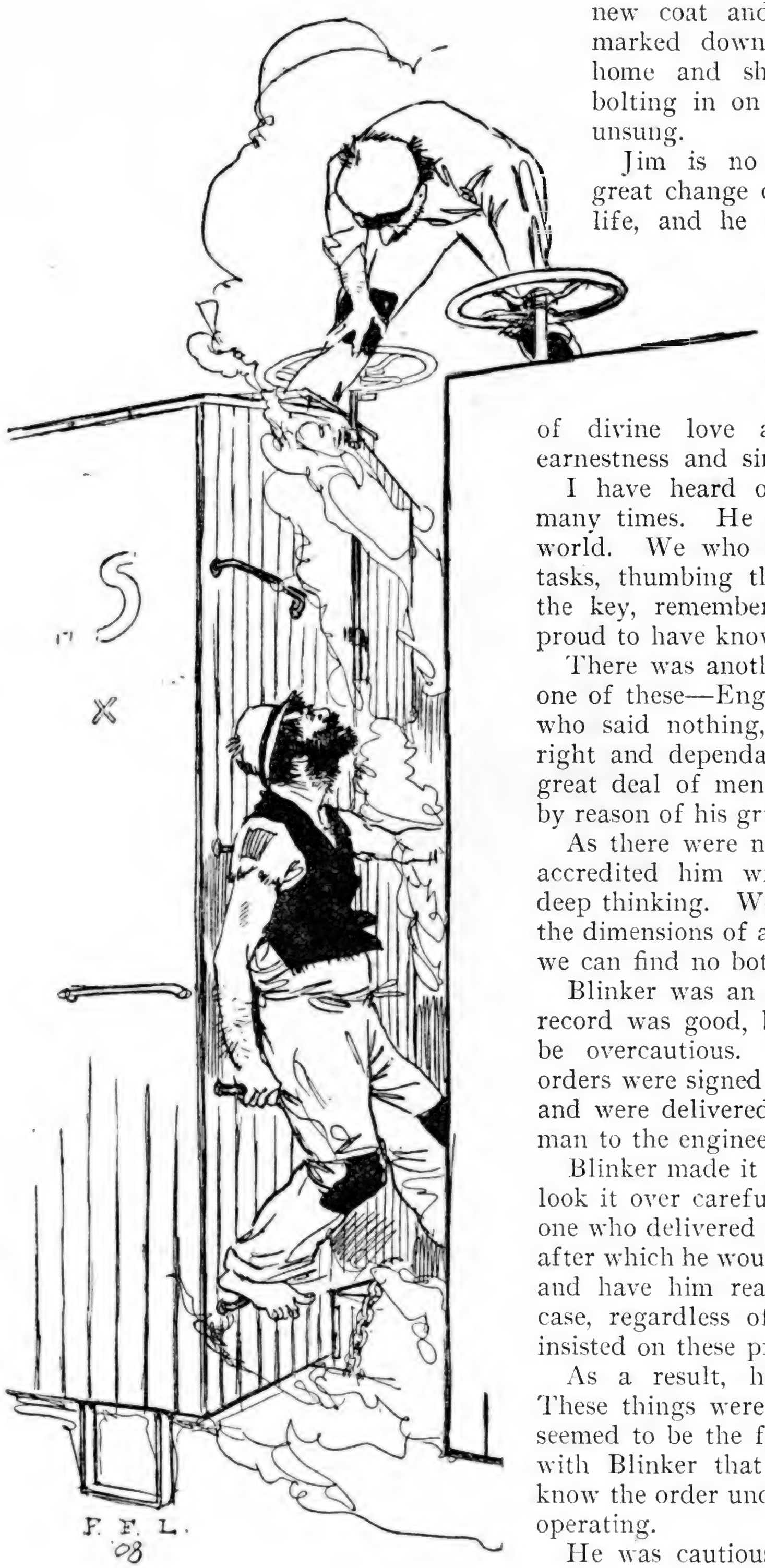
IN HIS DAYS OF SIN JIM'S ABHORRENCE WAS DECENT CLOTHES. IT WAS ALWAYS SOMETHING OF A MYSTERY WHERE HE FOUND THE GARMENTS HE WORE.

"Hey, there," said Jim, "you'll have to change cars. This train don't carry passengers."

The hobo looked at Jim, and, with an admonishing wave of the hand, replied:

"Sh, you darn fool! Keep still and come down from there! They'll put us both off!"

They say this was too much for Jim. He went over to the caboose in silence. When he got in he had a barber cut his hair and shave him. Then he bought a



THE HOBO LOOKED AT JIM AND REPLIED: "KEEP STILL AND COME DOWN FROM THERE! THEY'LL PUT US BOTH OFF!"

new coat and vest that had been marked down to $4.98, and went home and shocked his family by bolting in on them unheralded and unsung.

Jim is no longer with us. A great change came suddenly into his life, and he arose and went forth to bear testimony. Rough and unpolished, he has stood before railroaders everywhere, and told them the old story of divine love and forgiveness with earnestness and simplicity.

I have heard of his work indirectly many times. He has done good in the world. We who have remained at our tasks, thumbing the bills and punching the key, remember him kindly and are proud to have known him.

There was another type. Blinker was one of these—Engineer Blinker, the man who said nothing, and was always upright and dependable. We attributed a great deal of mental activity to Blinker by reason of his grim silence.

As there were no words from him, we accredited him with vast quantities of deep thinking. We are often deceived in the dimensions of a vacant mind in which we can find no bottom.

Blinker was an uncommon man. His record was good, but he was thought to be overcautious. At that time train-orders were signed by the conductor only, and were delivered by him or the brakeman to the engineer.

Blinker made it a rule to take his copy, look it over carefully, and then have the one who delivered it to him read it aloud, after which he would pass it to the fireman and have him read it aloud. In every case, regardless of the time it took, he insisted on these precautions.

As a result, he passed as a crank. These things were not demanded, but it seemed to be the full ten commandments with Blinker that all concerned should know the order under which the train was operating.

He was cautious and safe, and as no superfluous, incriminating, or qualifying words escaped his lips, we soon came to regard him as an extraordinary and exceptional engineer.

One morning he was running a switch-engine in the yards, and helped a freight up the hill to the place where I was a telegraph operator. It was a push of seven miles, and in that distance there were eighteen curves.

When he cut loose at my office I got him his "return-extra" orders. He held the tissue up and looked it over carefully.

"Read it," he said to me.

I did so very carefully. It was to the effect that after number 21, a passenger-train, due in a short time, had arrived, he was to "run extra, etc." There was no conductor, and Blinker went out and crawled on his engine.

I thought he had dropped down below the depot, and headed in at the elevator track, but in another minute I was startled to hear him whistle for a road-crossing half a mile away. I rushed out just in time to see him disappear around the first curve, going at a good speed.

I ran back into the office and called the despatcher, and told him that engine 76 had just left for P——.

"Great Heavens!" exclaimed the despatcher. "Number 21 is out of here five minutes ago."

He got into action at once. The wrecking-train was called, doctors were summoned, and every possible preparation was made for the impending catastrophe.

Then I went out and looked vacantly down the track where he had disappeared. Those were moments of intense suspense.

In a little bit there would be a crash, and human lives would be sacrificed to the error of one man. It was a sickening sensation to know all that was impending, and to feel so utterly impotent and helpless to avert it.

I held my watch in my shaking hand, and noted the speed of the second-hand, and made mental calculations of the time when they would meet. There is something indescribably uncanny in a deliberate figuring that marks the end of human lives.

When the fateful moment arrived, I turned away and went into the office, picturing the scene, hearing the cries of the injured, and witnessing the horror of it all. How could it be avoided?

The track curved right and left continuously through cuts and woods, and in six miles there was only one stretch of less than half a mile where the trains had their sole chance of seeing one another and coming to a stop.

The despatcher was calling me furiously.

"Anything yet?" he asked.

"Nothing," I answered.

He made a number of dashes, uncertain what to say further.

"They are together by this time," he went on slowly. "Look out for anything, and let me know."

At the end of five minutes I heard the whistle of the two engines far off, then closer. In due time the helper-engine came up to the station, followed closely by the passenger-train. They had met on the half-mile of straight track, with time to stop.

That seemed providential to me. Blinker was white and shaking.

"Read that order again," he said to me. I spread out his crumpled copy.

"After number 21 arrives—"

"After number 21 arrives?" he repeated, with rising voice. "I thought I went in for number 21."

He said no more, but took his copy of the order and pulled out. It was his last run.

A strange thing developed at the investigation. It was found that Blinker could neither read nor write, and that outside of a mechanical construction of his own name he did not know one letter from another.

No one knew of his illiteracy. The necessities of ignorance were taken as indications of an excessive but commendable caution, that carried him creditably through many years of active railroading.

Blinker could not turn that trick today, for railroads measure the capacities and the attainments of their men; twenty-five years ago they did not.

I saw Blinker afterward. He had charge of the engines of a big flour-mill. No reading was required, and he was doing well.

He was still the taciturn, uncommunicative Blinker, but as I turned away he said: "You know that morning? I forgot to have the fireman read that order. That's the first time I ever done that."

There was another type—the reckless and irresponsible railroader, who entered the service for the excitement and ad

venture of it, and loved the daring and game of chance that went with links and pins and loose discipline.

Jim McGarth was one of these. Always nervy, occasionally foolhardy, and frequently drunk, he earned the title of "Wild Jim."

In those days of uncertain watches he loved to cut the time to the last minute. He was always eager for advantage, and went on a hint.

Drink and excitement sent the blood coursing through his veins. He was undaunted by danger, and eager for every risk, but after they got him out of the last wreck, and he had come to, he found himself out of a job.

Then he became a loafer, blear-eyed and querulous, and talked boastingly of past recklessness. He got another job, lost it, and drank heavier. Then he sank lower, and joined the great army of old-time railroaders who have nothing left to them but vainglorious reminiscence.

Then came days when there was no more money. The fires burned low.

The stories of "daring runs," of "throwing her over," and of fearless controversies with superior officers, were told feebly, and fell on listless ears. Then came the hard, barren duties of a menial, that yielded only a bunk and scanty food.

Out on the prairie a contractor was building a stone road. From the quarry he constructed a narrow-gage, ribbon-railed track, and handled his stone on small dump-cars, pulled by a second-hand, wheezy, little dinkey engine, which was distempered and rheumatic. It was doctored by many mechanics and engineers, but failed often at critical times, and fumed and sputtered and bucked with manifold derangements.

THAT STRANGE AND DIMINISHING BREED OF OFFICIALS WHOSE AUTHORITY CARRIED A HEAVY POMP.

The contractor advertised for an engineer, and one came. He was a little shabby, and his hand was shaky, but he found the defective spots and patched them up, and work went on without further interruption.

Then came pay-day, and the new engineer sat up with a new light in his eyes, and retold the stories with added embellishments, and to willing listeners. With rekindled imagination he lived the days over that had been his at the throttle. Out along the dusty country road, where the track ran, he marked spots representing towns and sidings of the old division.

He sounded the dinkey bell, and the shrill little whistle, in mimic warning. He talked of Hiner's Hill and Snell's Crossing, the Boggstown curve and Beeson's cut—all unintelligible jargon to the others, but real and vital to him.

There had been a pay-day; I mentioned that. The bell sounded frequently, the whistle was persistent, and the little drivers slipped and spun furiously.

The last load of the day had gone out, and they were returning with the empty dumps.

"We've got to get in on time," said the engineer. "No man can run the 'limited' that can't make the time."

The old excitement was upon him. He opened the throttle to the fullest. The dump-cars rolled and danced, and the little engine bobbed about on the unballasted track.

"We are only ten minutes behind at Queenstown," he cried, as he jerked the whistle-cord for a country house. "Old Jim's the boy to make it, all right!"

The laborers clung to the rocking cars. The engineer was jostled about in the cab.

"Here's the Boggstown curve, and only five minutes to make up. If anybody can cut the mustard, it's old Jim. Watch 'em!"

There came a sudden lurch, a great bump, a careen, and the "limited" was in the ditch. Thus we write the word "Finis" to the life of the old-timer, Jim McGarth, for when they got him out from under he was dead.

In his pocket was a broken flask, the sign of "Ex." to a multitude of unfortunate railroaders. His last moments, barren of everything but imagination, were a dream in which he was at the top, "running the 'limited,' and bringing her in on time," a glorious ending to a life of failure. Peace to his ashes.

Then there was another type: That strange and diminishing breed of officials whose authority carried a heavy pomp; whose indignation was strong and stormy, and who were tyrannical and arrogant toward their subordinates.

They were great men in their day, and stood high in the community. They were a power in politics and in local affairs, for they could dispense favors or bear down like an autocrat as they willed.

They wore the air and title of military men without the epaulets. They were known as "colonel," or "major," or "captain," but Time, that grim old tyrant, has mustered them out.

IN THE SEAT WITH A PENSIVE YOUNG LADY HE TOSSED A MARY JANE HOLMES NOVEL, AND PASSED ON WITH CARELESS INDIFFERENCE.

Technical men have taken their places, and an exact science and mathematical certainty have succeeded the robust personality.

Lastly, there was the peanut-boy, with oranges three for twenty-five cents and apples three for ten. He followed the old-time conductor, as he passed down the aisle, collecting cash fares without the annoyance of a duplex-book. In the seat with a pensive young lady he tossed a Mary Jane Holmes novel, with red paper back, and passed on with careless indifference.

Then he slipped the yellow-backed story of *Jack Harkaway's* stirring adventures to the sporty young man in store clothes. He allured the more sedate with "pigs in clover," or the "fifteen puzzle." He held the little glass jars of scant but highly colored candy temptingly before the children.

He had souvenirs, and vile cigars. All the time he watched the young lady with sly and eager eye. So long as she idly thumbed the book he gave no heed; but once she settled down to a state of abstraction and attention to the contents he was by her side, and negotiations were immediately commenced.

He worked the passengers by all the arts of his ingenuity, and he learned human nature—alas! too well. For his overreaching zeal and importunities have brought down the disfavor of the managers, and he is being abolished.

(To be continued.)

THE SEA-GOING RAILROAD.

Florida East Coast Completes Construction to Knight's Key and Inaugurates First Train Service.

THE railroad out to sea is at last an accomplished fact. A few weeks ago the first train ran over the Florida Keys to Knight's Key, two-thirds of the way to Key West from Homestead on the Florida East Coast extension. It would be hard to exaggerate the difficulties that have been met.

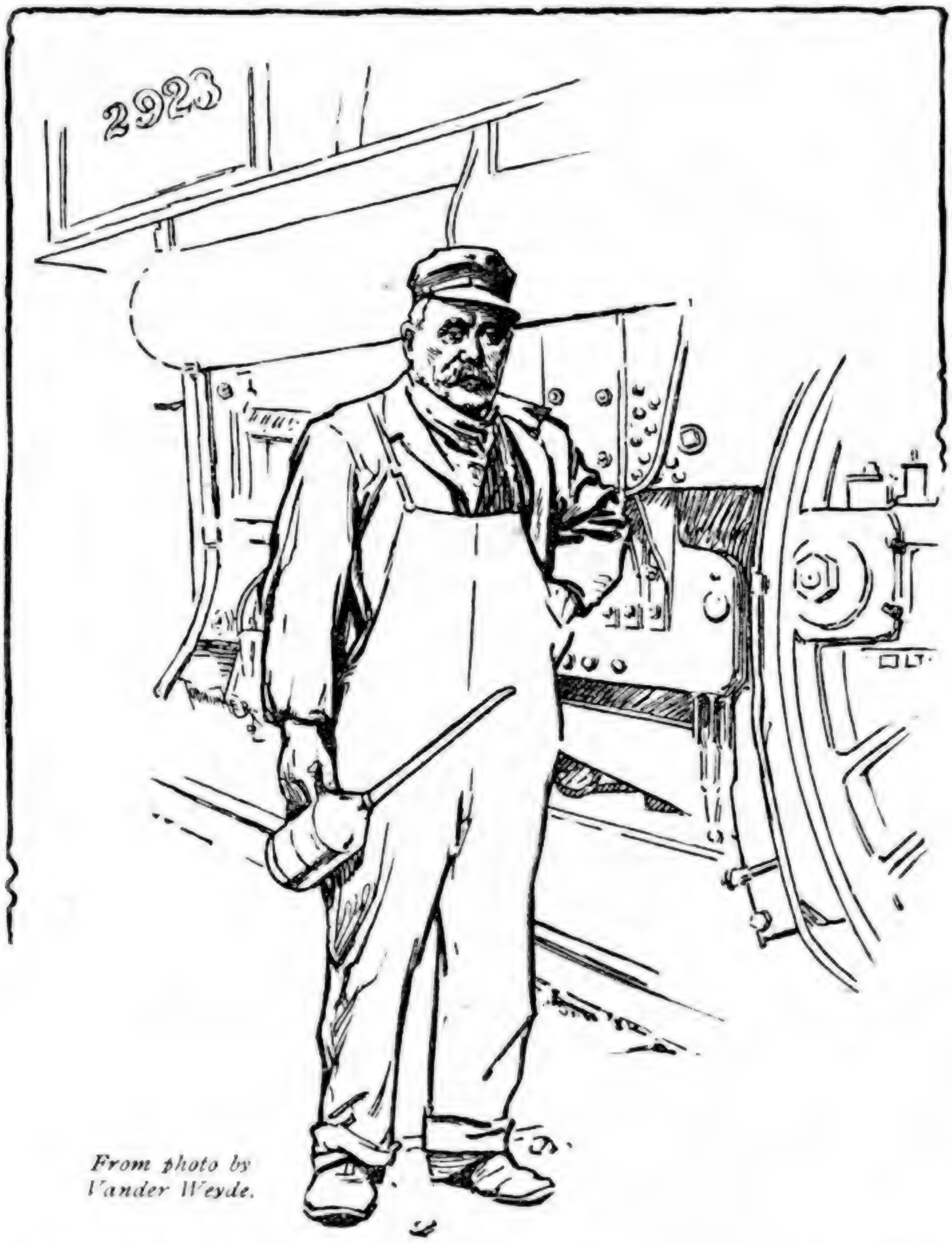
A year ago the great storm that devastated Jamaica swept over the keys, and much of the exposed work was swept away like tinder, but the work was pushed steadily on. In spite of the many reports to the contrary in the newspapers, the work has never been interrupted, and the inauguration of the service was held a year in advance of the time anticipated.

It is, possibly, the most stupendous and romantic of all railroad work. From Water's Edge to the temporary terminal at Knight's Key there are fourteen miles of construction over water, consisting of bridges and fills and viaducts. The longest, between Long Key and Grassy Key, is the famous Ocean Viaduct, five and a half miles long.

A trestle two thousand feet long leads from Knight's Key to Knight's Key dock, where a channel permits vessels of twenty feet draft to come alongside. There remain forty-seven miles of unfinished work to be done from Knight's Key to Key West, and this will add seventy-eight thousand five hundred and fifty feet of embankment and viaduct, making a total of nearly twenty-nine and a half miles.

In addition, there are the seventeen miles from Homestead through the Everglades to Water's Edge, which is practically one continuous embankment and which had to be dredged the entire distance. The principal openings yet to be crossed are: From Pigeon Key to Little Duck Keys, twenty-two thousand nine hundred feet; Knight's Key to Pigeon Key, ten thousand two hundred and fifty feet.

BIG ARTHUR OF THE EMPIRE STATE.



From photo by Vander Weyde.

A VETERAN OF THE NEW YORK CENTRAL WHO HAS HELD A THROTTLE FOR MORE THAN A GENERATION.

AN engineer of a fast train is at the top of his profession. He is among enginemen what Paderewski is among pianists or John Singer Sargent among portrait painters—the supreme master of his craft. He has won his place by superexcellence of work and seniority of service, and none can take it from him save by overtopping him in those qualities.

If you doubt this, study the face of "Big Arthur" Allen, one of the engineers of the Empire State Express and crack veteran runner of the New York Central. He will never tell you of it, but in the nearly half century of his service, thirty-five years of it on the right side of the cab, this man has seen close calls and hard tasks aplenty. And he has come out of them close-lipped, quiet, confident of himself, and past master of his job.

That is the secret of the man—it is just his job, and he has done it every day and all days with every atom of body, brain, and nerve. There are no heroics in running an engine with Big Arthur. Once upon a time he remarked quietly to a young writer in search of tales of heroism:

"One thing you can lay down for certain, there's none of this here hero thing about engineering. It's all just a matter of business; understand?"

And the young man understood—many things that Big Arthur did not mean to imply.

RICHARD HUGHES—RAILROAD DETECTIVE.

BY JOHNSTON McCULLEY.

Case No. III.—When the Wires Bore the Call for Help Through the Blizzard.

OUTSIDE the wind howled and shrieked and the snow banked against the buildings. Down in the yards switching-crews cursed the weather as they handled cars covered with icy sleet. At the roundhouse the rotaries were preparing to start out.

East and west the tracks of the P. and P. L. were tied up by the white bandage of nature, until the country looked like a virgin land, untouched and unmarred by the twin lines of steel.

Richard Hughes, secret-service operative, sat in his apartments at the hotel before an open fire. He was in a comfortable chair, dressed in a lounging-jacket and slippers, and while he puffed his pipe he listened to the shrieking of the locomotives as the crews labored to keep the yards clear.

Ferguson, his assistant, was reading at the table in the center of the room.

"It's an awful night," said Hughes, for the hundredth time. "When we do get a blizzard in this country, it's the real thing without any extenuating circumstances, as the lawyers say. Wouldn't this be a terrible night, Ferguson, to go out and—"

He was interrupted by the quick ring of a telephone-bell. It was the private phone which connected Hughes's apartments with the office of the superintendent.

Ferguson shivered when it rang, put down his book, and began buttoning his coat. Hughes went to the telephone. The conversation he held with the man at the other end of the wire was a short one.

"Get on your overcoat, Ferguson," he called, as he hung up the receiver. "There's business ahead."

"And the worst night in five years," Ferguson complained, as he started to comply.

Hughes got rid of jacket and slippers quickly, slipped into his street clothes, buttoned an ulster to his chin, and pulled a fur cap down over his ears and face until nothing of his countenance could be seen except his eyes.

Ferguson was already standing at the door when Hughes crossed the room and

Began in the May Railroad Man's Magazine. Single copies, 10 cents.

snapped out the light. They hurried to the hotel office, and Hughes rushed into the barroom for a flask of brandy.

"It's nasty stuff, but it may come in handy on a night like this," he commented.

Then they went out into the storm and walked toward the general offices of the P. and P. L. The sleet swirled around them, almost blinding them, cutting into their faces like thousands of tiny blades. The wind almost swept them off their feet.

Hughes led the way to the long building that housed the despatchers and their chief. Followed closely by Ferguson, he opened the storm-door, passed through the vestibule, and entered the main operating-room.

Every key was deserted save one. Around that were grouped the despatchers. The chief sat at the table.

"What's the trouble?" Hughes demanded, walking toward them and drawing off his gloves.

"Listen!" the chief ordered.

Hughes stepped to the key. The sounder was rattling in a frenzy. Hughes read the dots and dashes with an experienced ear.

"H—e—l—p! H—e—l—p!"

The call continued, repeated steadily. As Hughes listened, the chief told his story.

"It began ten minutes ago, when the wire was quiet. I broke in when my attention was called to it, but couldn't get an answer. All he sends is that one word.

"Don't know who it is, or where he is sending the message from. He breaks on me every time I try to talk, and begins sending that one word again."

Hughes took a chair at the table and opened the wire. In a second he began pounding the key slowly.

"Who are you?" he called. "Where are you? What is the trouble?"

"H—e—l—p!" came the answer. "H—e—l—p!"

"Stop that and say who you are!" commanded Hughes.

"H—e—l—p!"

"Confound the fool!" roared the chief.

Hughes called Craxton, the first station to the west. Craxton answered. Yes, Craxton had been hearing the call for aid, and had heard the chief trying to get some sense out of it. Everything was all right at Craxton.

Then Hughes called Antwerp, Gray's Butte, every station to the end of the division. Every answer was substantially the same.

Every operator had heard the call, and heard the chief questioning. Each one reported that everything was all right at his particular post. No one had any solution to offer.

"Try the east end," suggested the chief.

Hughes started to do as the chief suggested and called Brestville. Brestville gave a satisfactory answer.

Then Hughes took his hand from the key suddenly and looked at those around him with a helpless look on his face. The wire to the east had gone down.

But the wire to the west was all right again in a few minutes. Hughes started to open the key. Before his fingers could touch it there came the call again:

"H—e—l—p! H—e—l—p!"

The wire to the east was down. Therefore, the call for aid came from the west. Every station to the west had answered "O. K." What was the explanation?

Hughes turned to the superintendent, who had entered the room.

"Have the plows start toward the west immediately," he ordered. "Tell the crews to make as good progress as possible.

"Get a heavy engine out and have it backed down here, ready to go west at a moment's notice, behind the plows. I want an engineer who can obey orders and isn't afraid of the storm."

Then he turned to the key again. The superintendent issued his orders quickly.

"Listen!" commanded Hughes over the wire. "We will try to help you! Can't you tell us where you are?"

"H—e—l—p!" came the reply.

"Tell — us — where — you — are!" Hughes spelled slowly.

"H—e—l—p! H—e—l—p!"

Hughes turned to those standing around his chair.

"I don't know what to make of it," he said. "I can't get anything out of the fellow! He may be down and out,

half crazy, and unable to think of anything except that one word. But where can the message be coming from?"

"Some one is in trouble," said the chief. "You know as much as we do, Hughes. Every station on the division reports all right. You don't suppose any one could have tapped the wire?"

"Nonsense! Not in a storm like this! We know the call is from the west, at any rate. We'll have to travel west until we locate it."

"But every station reports itself safe," protested the chief.

Hughes turned toward him.

"The call is from the west," he said, with a show of anger. "Some one in the west is in trouble and is asking for help. It is our duty to give it.

"You noticed the way the message came in, I suppose. Either it was sent by an inexperienced operator, or by an operator whose fingers are stiff from the cold, who is on the verge of freezing to death, perhaps, and in his delirium can think of nothing but the one word uppermost in his mind."

"H—e—l—p!" came the call through the storm.

Hughes went to the key again and gave the general call. When the operators along the line had answered he sent his message.

"We are coming west on an engine following the plows. We will travel slowly and try to find where the call is coming from. Stay by your stations, for we shall stop at each one to investigate."

Hughes took his hand from the key. Then came the call again:

"H—e—l—p!"

"Is the locomotive ready?" Hughes asked the superintendent.

"All ready, Hughes. The plows started fifteen minutes ago. They won't have much trouble getting through tonight, and so you'll not be delayed by them.

"They have orders to get through as quickly as possible. Nothing else is moving to the west. You have right of track all the way."

"I want a pocket outfit," Hughes told the wire chief.

He had it almost immediately. Then he drew on his gloves and started for the door.

"Come, Ferguson," he said. "I don't want any one else."

They went out into the storm again, where a big passenger locomotive was waiting for them. Hughes sprang into the cab, followed by Ferguson, and the locomotive started westward, rattling over the frozen switches, leaving behind a score of puzzled switchmen, who wondered why the crack engine of the division should be sent out alone at such an hour and in such a storm.

II.

CRAXTON, the first station, was only five miles away. While they were making the run, Hughes kept watch out of the window of the cab on one side, and Ferguson on the other. The country was level mesa, and from the yard limit at Parker Junction to the station at Craxton there was no building within a hundred yards of the track. There was no place between the two stations from which the call for help could have come.

At Craxton, Hughes left the cab and entered the station. A very wide-awake and much mystified operator greeted him. The sounder was rattling: "H—e—l—p" with monotonous regularity.

"It's been keeping it up ever since you left the Junction," the operator said. "There it goes again!"

"H—" said the sounder, and then —"u—r—r—y!"

"He's changed his tune," said the operator.

Hughes sprang to the key and opened it.

"We're coming," he signaled. "Where are you?"

"H — u — r — r — y! H—e—l—p! H—u—r—r—y!"

"Where—are—you?" Hughes spelled it out slowly.

But he got the same answer—the call for aid, the plea to hasten.

"Stay at your post until you hear from me," Hughes instructed the operator.

Then he ran out of the station and boarded the locomotive again. Station after station was passed, Hughes entering each one and investigating. In each

he heard the call—always the same slow, monotonous touch on the key.

Finally Redhill was reached, the halfway point of the division. Hughes entered the station to find that the call had stopped.

"I haven't heard a thing for ten minutes," the operator said.

Hughes opened the key and called the mysterious operator. For several minutes he worked without result. Then he got the message again, slow and ragged:

"H——e—l——p!"

"Keep up your nerve; we're coming," Hughes clicked back.

In a moment he was in the cab again, and it was crawling along the tracks. Though the plows had done their work well, the snow was drifting again, and progress was slow. The drivers slipped on the icy rails, and the engineer used sand lavishly.

The green eye of a switch-lamp gleamed suddenly through the storm and darkness.

"A spur that runs down to the old gravel-pit," the engineer answered.

"Stop her!"

The locomotive stopped beside the switch.

"You won't find anything down there," said the fireman. "It has been abandoned for three months. We couldn't get down there with the engine, anyway. The tracks are buried under snow and ice."

"Does a wire run down there?" Hughes asked.

"A wire did run down there, when the pit was being used," the fireman answered. "I used to work in the pit. But I suppose they cut the station out when the pit was closed."

"You're not sure?"

"No," the fireman replied. "I think you'll find the operator's hut closed, though, and nothing there but the dead wire."

"It's three miles to the pit station, isn't it?"

"Just about," replied the fireman.

"See here!" exclaimed Hughes. "That call isn't coming from any regular station, and it isn't reasonable to suppose any one has tapped the wire along the track. It is just possible that the pit station isn't dead, and that some one is calling from there."

"We can't go down there with the locomotive," the engineer said, "unless the switch is thawed out and the plows go ahead of us."

"That'll take too much time," Hughes replied. "The plows are twenty miles up the line." He looked over at Ferguson. "I think I'll go down there," he added.

"In this storm! Through those drifts! You'd never live to do it!" cried the engineer.

"I'll try," responded Hughes. "You keep the locomotive here, and if you see us coming back help us. The chief will hold everything off the line until he hears from us. Ferguson, you come with me!"

Hughes prepared for the journey while he was talking, buttoning his ulster and pulling on his heavy gloves. Ferguson, anticipating his order, had done the same.

"If we aren't back within a reasonable time, run to the first station and have the operator there wire the chief," Hughes instructed the engineer. "But I think we'll be back!"

"Take a lantern," said the fireman.

Hughes took the one the fireman offered and sprang to the ground. Followed by Ferguson, he walked to the switch and plunged into the deep snow, trying to follow the spur.

Their progress was slow against the heavy wind as they broke through the thin crust that had formed on the snow, making walking difficult. The sleet blew into their faces, almost blinding them, and it was bitterly cold.

Before they had covered half the distance from the locomotive to the pit, they were almost exhausted from the continual battle against the elements. Hughes had given the lantern to Ferguson, who did his best to shield it from the wind.

The spur-track ran for the most of the way through a small cut, and the force of the wind had drifted the snow against the sides. Because of this fortunate fact, Hughes did not lose the track.

They reached the edge of the pit finally, where the track ran between the protecting sides of the hills which were

being cut away because the railroad needed gravel. The wind was not so bad in the mouth of the pit, nor was the snow so deep, save in the drifts. Hughes hurried on, thrashing his arms to keep his hands warm, shouting encouragement to Ferguson.

"I suppose the operator's shack is at the other end of the pit, where the gravel-crews left off work," Hughes said. "Cheer up, Ferguson; we're almost there."

They rounded a bend where the wind came sweeping down an adjoining cañon. This was worse than it had been on the level mesa. Hughes turned his face from the blast and stumbled on through the fresh drifts.

Soon they reached the long shacks that had served as sleeping quarters for the men working in the pit. Hughes knew that the operator's hut was somewhere near.

He stopped and looked about him. Through the swirling snow to the right of the track he saw what looked to be a small building. He left the track and stumbled toward it.

Ferguson followed closely with the lantern. Hughes walked to the hut and peered in through a window. He could see nothing; there was no light, no sound of a living thing.

The secret-service man stepped to the door, turned the knob, and pushed the door open. Ferguson followed him inside, and Hughes slammed the door to keep out the wind and snow.

Taking the lantern from beneath the protection of his overcoat-cape, Ferguson held it above his head. Hughes sprang forward.

"Quick! Here, Ferguson!" he cried.

Kneeling before the instrument-table, her head on her arms, her hair half covered by the snow that had drifted through the windows, her numb hand grasping the open key, was the mysterious operator who had sent the message for help.

III.

"It's a woman!" exclaimed Ferguson.

Hughes had sprung to her side and was lifting her from the table. Her arms fell lifelessly. Her eyes were closed.

In one corner of the hut Ferguson found a chair. He placed it beside the table, and Hughes lifted the girl upon it. While Ferguson held the lantern, the other tried to force some brandy between the girl's teeth.

"She's almost frozen," he said, talking rapidly. "Don't stop to ask questions or wonder how she came here, Ferguson.

"Look at that old stove there in the corner. See if the pipe is all right. We must have a fire."

Ferguson rushed to the stove. The snow that had drifted in under the door was banked about it. He cleared the snow away with his feet. The stove was in fair condition, and the pipe was good and ran through the side of the hut.

"What about fuel?" Ferguson asked.

"There's a hatchet behind the stove. Break up the table—anything! Make a fire as soon as you can."

Ferguson got the hatchet, pulled the table to the middle of the room, and began breaking it up. It was all they had in the way of fuel.

Not another bit of loose wood was in the hut, with the exception of the chair. The building was constructed of rough planks, and to tear one of them down would be to let in the snow, the sleet, and the stinging wind that swept down the cañon.

Hughes worked over the girl, forcing more brandy down her throat, rubbing her hands and face with snow. Once or twice she moaned.

She had been very near to death. Though her face had been partially protected by the hood she wore, her hands had suffered, especially the one that had rested on the telegraph-key.

Ferguson whittled some shavings and started a blaze. It was difficult work, for the wood was wet and soggy; but finally the flames caught on the larger pieces of wood which Ferguson fed to them and began to roar through the pipe.

Hughes lifted girl and chair together and moved them nearer the stove. Then he pulled off his gloves, warmed his hands at the fire, and began rubbing the girl's hands again. Ferguson, after

filling the stove with fuel, gave his assistance, holding the girl in his arms while Hughes worked.

Presently she opened her eyes, and her lips struggled to smile.

"Take it easy," Hughes murmured. "We got here in time. We'll get you out all right."

"I thought you'd — never — come," she whispered in reply.

"It took time, you know. You wouldn't tell us over the wire where you were. We asked you, but you wouldn't answer."

"I didn't know what you were asking," she said. "I couldn't read the wire."

"Couldn't read the wire!" Hughes exclaimed.

"No," she replied. "I knew the alphabet—knew how to send a little. I couldn't remember all of it, but I finally managed to spell 'help.' Oh, yes! And I spelled 'hurry' once or twice. Then I got so cold—"

"I understand," Hughes said.

"My brother is the operator at Redhill," she explained. "He taught me what I know. I live with my parents on a little ranch half-way between Redhill and Burton.

"I started to Redhill just before dark, to get my brother to come out home, because mother is sick. I lost my way—I couldn't find the tracks. I found the switch at the spur, and instead of going on to Redhill, I came down the spur.

"It was so dark—and cold! I thought I was freezing. Then I stumbled against this place and came in. I happened to find the key, and tried to call for help."

"You've had a terrible experience," said Hughes. "But we'll get you out of it now. Sit nearer the stove and drink some of this."

Following Hughes's directions, she washed her face and hands in snow. Then she sat nearer the fire and held out her hands to the red-hot stove.

"It feels so good!" she exclaimed.

Hughes went to the key, opened it, and called the chief despatcher.

"Found woman in operator's hut at gravel-pit," he wired. "Almost frozen. Have started fire. Ferguson and I walked in from main line. Blizzard worse than ever. Can't get back."

"Can you hold out until morning?" the chief asked.

"Fuel will not last over half an hour," Hughes replied. "Impossible to get more. Can never make it back to main line with girl through the storm.

"Get plows by wire, order them to clear spur-track as soon as possible, thaw switch, get to us quick! Have locomotive follow behind plows—car, also, if possible. Do your best; we'll try to hold out."

Hughes closed the key. The chief lost no time in advising the secret-service man to keep up his courage, but began at once calling the stations toward the end of the division, trying to catch the plows. Hughes leaned over the table and listened.

The plows had passed Burton, the dots and dashes told him. They hadn't reached Holman yet. There they were! The Holman operator was reporting that he had flagged them.

Then the chief issued his orders. The plows were to return at their best speed to the gravel-pit spur, thaw the switch, and clear the spur-track, to rescue three people in the operator's hut in the pit. The chief ordered them to lose no time—three lives depended upon it.

Hughes turned from the table. Through the cracks in the hut the stinging wind entered. It was colder than before, and the storm was increasing.

But the position of the hut did not give it the blessing of the warmth of banked snow, for the sweep of the wind swirled the snow by, and banked it farther on. There was no question about it in Hughes's mind—three lives *did* depend upon the work of the plows.

"What were you saying over the wire?" the girl asked, as Hughes turned toward the stove.

"I was reporting that we had found you all right," he answered, "and telling them to come for us."

"There's no danger — now?" she questioned in alarm.

"Let us hope the worst is over," said Hughes.

For a time they sat in silence, listening to the roar of the wind. Then Ferguson rose from his kneeling position be-

fore the stove to put in more fuel. The table was almost gone. The flames in the small stove seemed to devour the wood in a flash of time, and the wind drew a large percent of the warmth up the pipe.

Hughes signaled to Ferguson to go slow with the wood. He couldn't explain the situation fully with the girl there.

Ferguson did not understand Morse, and knew nothing of the conversation Hughes had held with the chief over the wire, but he could read his superior's face, and he knew that their situation was perilous.

In time the table was gone, the last piece fed to the flames.

"I guess we'll have to burn the chair," Hughes told the girl, smiling. "You'll not mind sitting on the floor, will you? Or, if you don't like to sit in the snow, could you stand up a while?"

She did not reply at first, but rose from the chair and pushed it toward Ferguson. Standing close to the stove, she turned to Hughes.

"Why don't you tell me?" she implored. "I know by the way you act that we are in danger. What is it?"

"I'll be frank with you," said Hughes. "We must stay here until they can get to us with the plows. It may take several hours, and we are almost out of fuel. But we'll stick it out, some way."

Hughes crossed the room to the key.

"Listen!" he continued. "That's the Burton operator telling the despatcher the plows have passed there as fast as they can be driven. It's only fifteen miles from there to the spur-switch. They'll soon be at work."

His assumed cheerfulness did not deceive her, however.

"It will take them almost an hour to reach the switch in this wind," she said. "And then they'll have a hard time getting here. Don't you see it's useless to try to fool me? I know we are in danger.

"It is colder than it was, and the wind comes in through the cracks. The fire will soon be gone." She paused a moment. "And you two men came out here through the storm, risked your lives, to save me," she added slowly. "Just because I—some one you did not know, who did not know enough to tell you who I was—called for help over the wire."

"Because the dots and dashes told us some one was in danger," Hughes answered. "Please don't speak of it. Ferguson and I are paid for this sort of thing.

"It's our profession to risk ourselves to save lives and property, and to bring the guilty to justice. We'll not speak of it any more. How about that fire, Ferguson?"

"There goes the last of the chair," was the reply. "It can't last very many minutes."

"I don't suppose there's any chance of finding more fuel?"

"I think not," Ferguson replied. "The other sheds, even if we could get to them through the storm, contain nothing in the way of fuel. There's not a bit of coal left at the end of the season by the steam-shovel men."

"I'm going to see," Hughes answered quietly.

Ferguson made no reply; it was useless to plead when Hughes once made up his mind. He stood beside the door while Hughes got ready for the trip, threw it open, and closed it again after Hughes had passed through.

The secret-service man turned his face away from the wind, and stumbled through the swirling snow toward the sheds. He reached them soon.

They were built of sheet-iron, intended to house tools. It flashed through Hughes's mind that there might be tools there with wooden handles.

But his spirits fell when he found the door of the first shed unlocked. He entered, and with the lantern, which he had brought with him, inspected every nook and corner. There was nothing there—nothing! And so with the next, and the next. Hughes turned back to the operator's hut.

When he reached it, there was no need to tell that he had failed. They read that in his face. Ferguson turned toward the wall, not trusting himself to look at the girl. But she stood it bravely.

"Never mind," she said. "Perhaps it will be all right."

Ferguson picked up the hatchet and turned toward one of the walls.

"What are you going to do?" Hughes demanded.

"Tear a board from the wall. It's the only way. The floor has been soaked with rain and snow all winter—not a bit of it would burn."

"Don't touch those walls!" Hughes commanded. "The wind is coming in badly enough now. Tear down one of those boards and let the wind get a sweep at us—" Hughes did not continue, but both Ferguson and the girl knew his meaning.

The fire in the stove was dying out. Ferguson picked up the splinters that had fallen on the snow which covered the floor, and threw them in the stove.

"If we had only one chunk of wood," he complained.

Hughes was walking the length of the hut, thrashing his arms to keep them warm. He stopped near the door, to listen to the howling of the wind. He wondered where the plows were, what progress they were making, whether they would arrive in time.

He wasn't afraid for himself—but the girl—and Ferguson? He felt responsible for Ferguson; he had brought him into it. But Ferguson was a man of courage; it wouldn't be as bad for him as for the girl.

He turned and looked at the girl. She was standing close to the stove—very close—and where the iron had been red there was now nothing but rust. The wind had soon chilled it when the fire gave out.

"I'm getting—sleepy," she muttered.

Hughes saw her put her hands up to her face. She swayed, and he sprang forward and caught her as she fell.

"Quick, Ferguson!" he commanded. "Sit down there on the floor! Never mind the snow! Hold her a minute—so!" Hughes started to strip off his ulster.

"Don't do that! Take mine!" Ferguson implored. "You'll freeze."

"I'm giving orders here!" Hughes cried.

He wrapped the ulster about the girl, covering her feet, her hands, her face.

"Hold her close to you, Ferguson!" he commanded. "Keep her warm. Tell me the instant you begin to feel numb, and I'll relieve you. I'll jump around and keep warm."

Already the cold wind was piercing him. The chief was calling the operator's hut.

Hughes sprang to the key and answered.

"Operator at Redhill reports plows working on spur," was the message. "How are you?"

"Fire out," Hughes worked the key stiffly. "Girl almost frozen. Ferguson caring for her."

"Keep in touch with me," the despatcher commanded. "Tell me when you can see the plows."

Hughes answered, closed the key, and walked to the door. Down the track there was no flash of light against the swirling snow—nothing to tell him that the plows were coming.

He was getting very cold. He turned to speak to Ferguson, and saw that his head was nodding over the girl's form, and his eyes were closed.

"Keep awake!" Hughes cried. "You ought to know better—"

Ferguson opened his eyes and looked at Hughes as though bewildered; then his head fell forward again. Hughes shook him, but he did not awaken. The secret-service man knew what that meant. He had seen men freeze before.

He shook the girl, too, but she did not awaken. Then he shook both of them, pulled at them, but it was no use. They were insensible to his roughness.

He began to feel sleepy, too, but he fought it off. He tried to run around the small room. He beat against the walls with his fists. He thrashed his arms, but he couldn't overcome that feeling of drowsiness.

He felt weak—weaker! Why couldn't he shake it off? Why couldn't— There was the sounder rattling again—the little dots and dashes.

The chief was calling him. Well—he wouldn't worry the chief. He wouldn't talk to him. He'd just answer.

He opened the key. "I," he wired.

"Plows there yet?"

"No."

"Are you all right?"

"I."

Hughes closed the key and stumbled

away from the board. Ferguson's head was resting on his breast. In his unconsciousness he still held the girl closely in his arms.

Hughes went to the door again, and tried to look through a crack. There was no light. Would the plows never come? The drowsiness was almost overcoming him. His head pained him, and in his ears there was a great roaring. If the plows would only—

There was the despatcher calling again.

"I," Hughes answered. He fell against the wall and sank to his knees on the snow-covered floor, working the key mechanically. His eyes closed, and he felt himself sinking into unconsciousness. The dots and dashes of the despatcher came to him like small echoes.

"I," he wired.

"Are you still all right?"

"I."

"Can you see the plows yet?"

"No."

"How are Ferguson and the girl?"

"I."

"Did you learn the girl's name?"

"I."

"Who is she?"

"I."

And while the despatcher questioned, Hughes, in his semi-unconsciousness, continued to answer in the same manner. Back at Parker Junction the despatcher swore and wept over his key. He knew what it meant—Hughes was going under. But he'd try once more.

"Wake up!" he wired. "Pull yourself together! Are the plows there yet? Ph! Ph! Are the plows there?"

Hughes's head was on his arm now; the hand which grasped the key was almost nerveless. He was slipping—slipping! There was the roar in his head again!

No, it wasn't that. It was something else. And that light that flowed through the cracks in the hut—what was that?

Hughes tried to drag himself to his feet. It came to him clearer now—the throb of the rotaries!

"Are the plows there? Ph! Ph! Are the plows there?"

The despatcher was trying hard to rally Hughes, but there was no answer to his calls.

Hughes stumbled toward Ferguson, but he realized that the sounder was rattling again. Why did that silly despatcher bother him? Why did he force him to answer, when it was so hard to use dots and dashes?

"Ph! Ph!" came the call. "Answer, Hughes! Are — the — plows — there?"

Hughes tottered to the key. As he did so, he heard voices outside, and realized that some one had thrown open the door. But he paid no attention to them. The despatcher was calling.

"Are—the—plows—there?"

Hughes's numb hand reached for the key and grasped it. He threw out the switch.

"O—K!" he answered.

And one of the men from the rotaries caught him as he fell.

(**To be continued.**)

LONDON'S UNDERGROUND TRAVELERS.

THE three new subsidiary tubes of the London Underground Electric Railways have issued their reports for the half year ended December 31. The figures show that the Great Northern, Piccadilly and Brompton branch carried 13,914,779 passengers during the latter half of the year, as against 11,973,759 for the previous half year.

The Baker Street and Waterloo Company carried 10,662,876 passengers as compared with 6,794,895 during the corresponding period in the previous year, while the net receipts on this branch show a gain of more than fifty-six per cent over the last half year of 1906.

The Charing Cross, Euston and Hampstead, the third and newest tube, was opened on the 22d of June last, and from that time to the end of December it carried 9,881,357 passengers. All the companies controlled by the Underground Electric Railways Company of London, Limited, carried one hundred million passengers during the latter half of 1907. But London is still behind New York in this respect.

Full Speed Ahead.

How the Forge of the Railroad World Roars on Unceasingly, Turning out Hustling Giants and Far-Stretching Highways of Steel.

FROM the government of New Zealand the Pennsylvania Steel Company has received an order for six thousand tons of standard steel rails. It is stated that the rails will be rolled at the Sparrow's Point plant, Maryland.

THE State railway commission of Michigan is considering the necessity for compelling the railroads of the State to adopt a standard pattern of signals and switches. The adoption will be accomplished gradually.

BILLS have been introduced into Congress to grant authority to the Copper River Railroad to construct a bridge across the Copper River, Alaska, and for the Copper River and Northwestern to build a bridge across Behring Lake.

IN a recently published interview, J. W. Stewart, of the contracting firm of Foley, Welsh and Stewart, stated that the Grand Trunk Pacific would employ a force of twelve thousand men in grading the right of way in Western Canada this summer.

ORDERS have been placed recently with British manufacturers by the Western Australia state railways for eleven thousand tons of forty-five pound steel rails, at the rate of about thirty-three dollars per ton delivered. An American firm was in competition for the order.

AFTER two years' work the Illinois Central has completed an eighty-mile stretch of road from Corinth, Mississippi, to Haleyville, Alabama, and this link makes complete the great chain of Harriman railroads from ocean to ocean. This will also give the Illinois Central an entry into the rich coal and iron region of Birmingham.

THE New York Central has placed orders recently for thirty-one thousand tons of steel rails to be rolled by the Illinois Steel Company. This is part of the eighty thousand tons to be ordered for the present year, according to the plans of the company as they now stand.

THE eighteen-hour schedule of the New York Central's Twentieth Century Limited was restored last April. The running time was increased to nineteen and a half hours early last December, and later it was made nineteen hours east bound and eighteen and a half hours west bound.

IT is stated that the Burnham-Williams Company of the Baldwin Locomotive Works has acquired control of the Lima Locomotive and Machine Company's plant at Lima, Ohio. This plant is the largest industrial concern in Lima and for some months the work there has not been very brisk.

THE Pennsylvania Railroad has practically completed the installation of the block signal system on the Cleveland and Pittsburgh division. The system has been put in at a cost of two thousand five hundred dollars a mile. So far the change on the division has cost one hundred and seventy-five thousand dollars.

ANNOUNCEMENT has been made that M. J. Heney, the contractor of the Copper River and Northwestern Railroad, the Guggenheim road in Alaska, will send fifteen hundred railroad laborers north as

fast as they can be secured, as he has received instructions to rush the Cordova division of the road as rapidly as possible.

WORK is proceeding rapidly on the various improvements of the New York, New Haven and Hartford, among which one of the most important is the six-tracking of the Harlem River Branch line, extending from New Rochelle to the Harlem River at New York City. Four of these tracks will be equipped for electricity.

ORDERS have been placed with the Pennsylvania Steel Company by the Lehigh and New England Railroad for the building of two bridges, one at a cost of a hundred thousand dollars and the other at a cost of ten thousand. The larger bridge is to span the Delaware at Portland, Pennsylvania, and the other will span Paulin's Kill, near Hainsburg Junction, New Jersey.

EQUIPMENT involving an expenditure of six hundred thousand dollars has been ordered by the Lehigh and New England Railroad. The Cambria Steel Company benefited to the extent of three hundred coal-cars, and the American Car and Foundry Company received orders for two hundred and fifty. Three locomotives and other equipment are included in the orders placed.

ON the Lake Shore Railroad it has been decided to continue as regular routine the recent experiments made in operating trains by telephone, and the telegraph system will be discontinued on the eighty-one miles of track between Erie and Buffalo. It is said that the system will be extended over the entire lines between Erie and Cleveland.

The Pennsylvania has also introduced the telephone in despatching, to a considerable extent, and is increasing its use for that purpose.

AN announcement has been made to the effect that the Harriman lines have acquired control of the largest and most complete trolley system in the world. This system, formerly under the control of Henry E. Huntington, comprises the Pacific Electric, Los Angeles-Pacific, Los Angeles Railway Company, Los Angeles Interurban Railway Company, and Los Angeles and Redondo Railway Company.

The transfer, which involves some fifty million dollars' worth of property, means that the Southern Pacific will be in control of practically all the important trolley lines in Southern California. Mr. Harriman is said to have been really in control of the system for a number of years.

THE work of breaking through the last of the four tubes being constructed under the East River by the Pennsylvania was finished on the 18th of March, thus completing the system of tubes from New Jersey to Long Island as far as the mere breaking through of the tunnels is concerned. There is, however, a great deal of work yet to be done on all the tubes in the way of lining them with concrete, and the routes will not be opened for public traffic for about two years, or until the completion of the giant station on Manhattan Island.

WHAT was said to be the longest train ever handled in the West was recently hauled out of Kansas City by the Missouri Pacific. The train left Kansas City March 2, *en route* for Omaha, via Leavenworth, Atchison, and other points in Kansas.

It consisted of one hundred and seventy-three box and cattle-cars, most of which were empty, and was drawn by one ordinary freight engine. The train was so heavy that the fireman had to fire up every quarter of a mile, using two bushels of coal at each time. It is stated that the train was over two miles long.

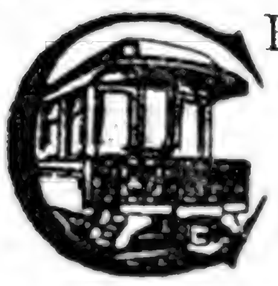
WHAT is stated to be one of the largest silverware contracts ever awarded has recently been placed with the Meriden Britannia Company, of Meriden, Connecticut. The contracts cover all the silverware to be used by the various lines comprising the Harriman railroad and steamship systems, as well as all the hotels and resaurants under the same management. The lines involved are the following:

Union Pacific, Oregon Short Line, Oregon Railroad and Navigation Company, Southern Pacific, Northwestern Pacific, Illinois Central, Southern Pacific Company's Atlantic steamship lines, and the Pacific Mail Steamship Company. These contracts call not only for material to be furnished for new equipment, but for the refurnishing of equipment now in use, on which all the silverware is being brought gradually up to a uniform standard of quality and designs.

BENNINGS'S LAST TRICK.

BY GEORGE W. HORN.

Why He Told a Long-Winded Yarn to His Casual Friends in the Smoking-Car.

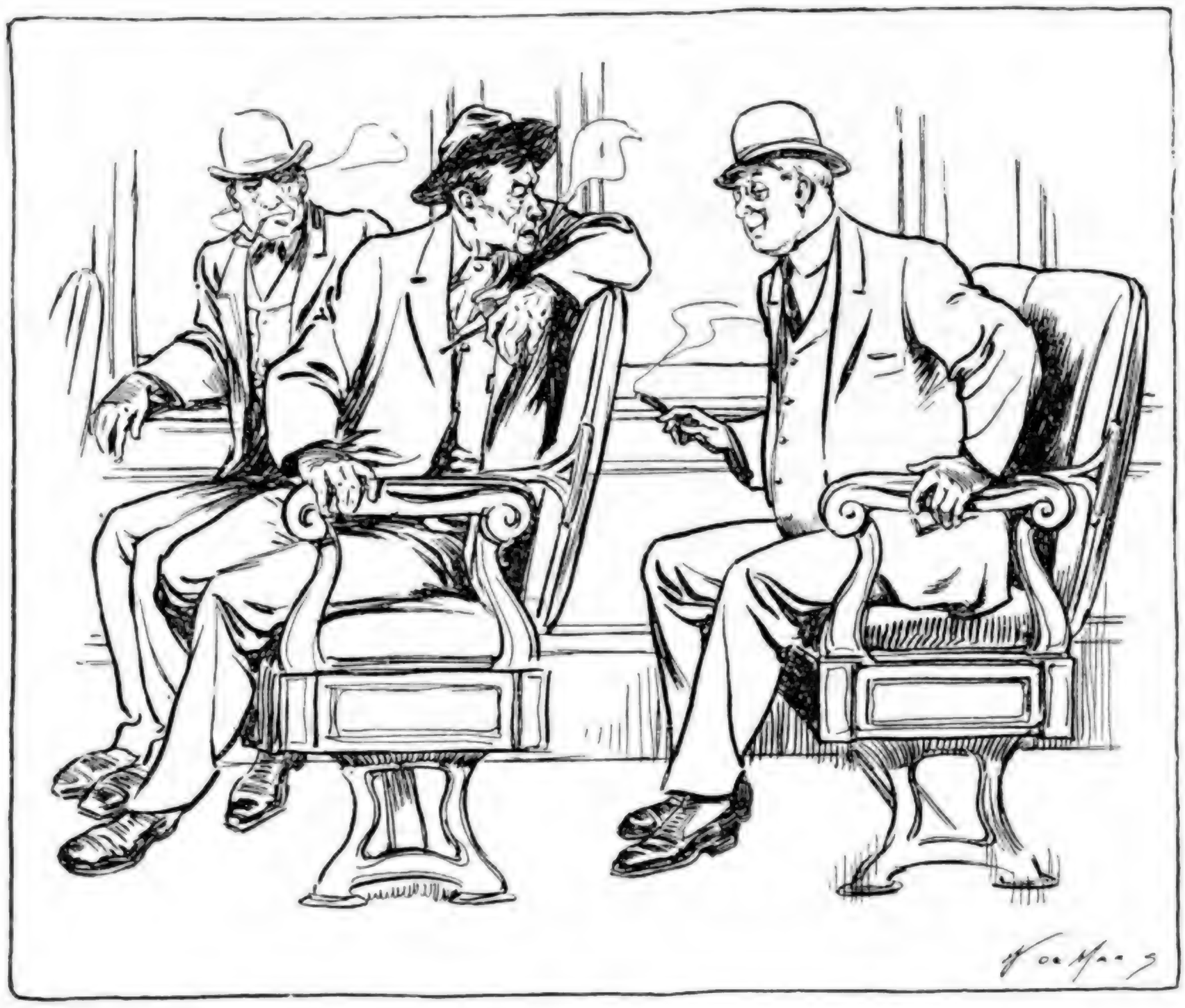


CHARLIE BENNINGS, special agent, sat in the smoker as the fastest train on the Mexican Central thundered on her way United States-ward.

"Bennings," his chief had said, "you have passed the age limit, and after you have covered this assignment I am giving you, you can retire on half-pay."

It was not that he minded stepping down and out so much; he had saved his money and could afford to rest; but there had seemed to be something in his chief's voice which intimated almost as plainly as if he had spoken the words, "You have about passed the stage of usefulness; better get out and make room for a live man."

That was what rankled in the breast of Bennings as he peered out at the flying Chihuahua desert that starlit night. He'd show 'em, he vowed. He had always made good during his thirty years of service; and it had not always been easy, either; there were several ugly scars upon his person now which bore witness to that fact.



"SAY, ME FRIEND HERE T'INKS DAT HE'S A WISE GUY ON HUMAN NATURE AND BETS ME DAT YOUSE A BULL."

They were sending him on this last mission, an almost impossible one, secure in their belief that he would fail and they would then be justified in dismissing him. He saw it all now and—he'd show 'em!

One of a trio of rough-looking citizens in front of him turned and spoke:

"Say, me friend here tinks he's a wise guy on human nature and bets me dat youse a bull. Does I lose my coin?"

"Pardon!" Bennings was all mystified courtesy. "A what?"

"A bull, a fly-cop. a tec!"

Bennings's face lighted with comprehension and he broke into a roar of laughter that shook his fat sides.

"A detective!" he gasped. "That *is* good. I've been taken for about everything else, but—honestly," his face sobered for a moment, "I don't *look* like a detective, do I?"

The three exchanged glances, then turned and surveyed the round, jolly face, the gold-rimmed spectacles, and the white hair of the still gurgling Bennings. They seemed satisfied that he looked less like a detective than anybody they had ever seen. Whereupon they turned again in their seats and exchanged glances.

"But"—Bennings seemed loath to close the incident—"I did serve as an officer once in my younger days and I had the most exciting experience in my life. Perhaps you might be interested."

The trio seemed languidly attentive, and one "reckoned they didn't mind."

"In Texas, about 1869, the natives were still sore about the late unpleasantness and were not over cordial to Northern settlers. In fact, their first question to me was: 'Well, what did *you* do that you had to leave home?' I can't say that you could blame them, for the country was full of renegades.

"It was this aloofness on the part of the Southerners that caused me to pick as one of my associates Doc Toles, a man beloved of the natives on account of his kindness to the sick and destitute, but not with the best of records, as you shall see.

"One day little Jimmy Welkin came lurching into my store, sobbing as if his heart had broken.

"'They won't nobody go after Doc Toles,' he blubbered.

"Sure enough, I remembered having seen Doc racing his horse down the street a short time before.

"'What's he done?' I asked.

"'C-come with me,' answered little Jimmy, and, gentlemen, what I saw lying on the floor of little Jimmy's restaurant made me swear and take a bee-line for the sheriff's office.

"'Send me after Toles,' I demanded of the sheriff, not over-gently.

"He explained that all his deputies were away from town on duty and that he himself was obliged to remain in court, which was then in session. Then looking me over coldly, he announced:

"'Doc Toles has the habit of killing people when he's drunk. He has been tried before on similar charges and acquitted. People like him well enough for his good qualities to overlook these occasional lapses.

"'I think it quite probable that he would even be acquitted on this charge. It would be just as well to let him leave the country.'

"I still remembered what I had seen on the restaurant floor. 'If you don't give me a commission for myself and a warrant for Toles I'll go after him on my own hook,' I said.

"He made out the papers, saying as he did so: 'All right, but you'll never take him alive. Better get your affairs in shape before you start. Got a gun? You may need one."

"I showed it to him, remarking that I had no shells. He took it from me and loaded it before my eyes. Gentlemen, I didn't know it then, but he had *loaded old-style rim-fire cartridges in a new style center-fire gun.*

"'Five,' said he, 'they'll do you as well as a hundred.'

"You're sure I'm not boring you, gentlemen?"

Before any of the men could reply the brakeman entered and called out: "Next stop is Juarez, Mexico. Those going across the line to El Paso, Texas, get baggage ready for customs inspectors."

The three men began to don their overcoats, and under cover of the confusion Bennings hastily scribbled a few words on a scrap of paper, folded it in a dollar bill, and called the brakeman.

"Take this for your pains," he re-

marked in a loud voice, "and get my baggage through the custom-house."

At the same time he contrived, unobserved by any one, to kick the brakeman sharply on the shins. Paying no attention to the other's stare of surprise, Bennings turned back to his audience.

"It's a twenty-minute ride to Juarez, gentlemen," he remarked, "and you might as well make yourselves comfortable.

"I was on Toles's trail an hour behind him. The country was sparsely settled, and I lost some time making inquiries at isolated houses and occasionally found myself off the scent, but I was always able to pick it up again, though, as I say, I lost some time.

"However, after four days' hard riding, I entered a little town we may call San Felipe, which was built in a square, the court-house standing in the center. It was about noon, and after leaving my horse to be cared for at a stable, I made my way across the plaza to an adobe building marked 'restaurant,' for I was ravenously hungry. I was within about twenty feet of the place when out of the door, calmly picking his teeth, stepped Toles.

"TAKE THIS FOR YOUR PAINS," HE REMARKED IN A LOUD VOICE, "AND GET MY BAGGAGE THROUGH THE CUSTOM-HOUSE."

"Instantly I had him covered, and began to orate thus:

"'Doc, you have seen me put five shots into a tomato-can at fifty yards without a miss. Your head is bigger than a can and I'm not half so far away; and Doc, as sure as I'm standing here I'll begin firing if you make one false move. Will you put your hands in the air, Doc?'

"He looked at me and his face went white. 'Charlie, is it you?' he croaked.

"But he was very obedient about ele-

"THESE ARE OUR MEN, WANTED FOR SYSTEMATICALLY LOOTING MANIFEST FREIGHT ON DIFFERENT SYSTEMS, WITH A FEW MURDERS OF TRAINMEN ON THE SIDE."

vating his arms, and we attracted considerable attention as we marched into the sheriff's office—Doc vainly reaching for 'that inverted bowl we call the sky,' while the muzzle of my pistol caressed his neck.

"Before I started back with my prisoner next day, the sheriff made me handcuff Toles, but by the end of the second day his wrists were so sore and raw that I took one of the handcuffs off and let the other dangle as he rode.

"The sun was just setting when we rode through a narrow gulch, and Doc suddenly reined in his horse and pointed with his free arm, saying, 'See that coyote; shoot him!'

"I looked, and there right beside us sat one of the brutes. I pulled out my weapon, but before I could aim, the creature bounded behind a rock and was lost in the underbrush.

"If he had sat there a second longer—well, Doc was a powerful man and I was a light-weight in those days. If I had pulled the trigger, I hesitate—"

The train came to a halt, and the glare of numerous lights was reflected through the windows.

"Must be Juarez," remarked one of the men nervously. "Funny that blamed brakeman didn't call out. Come on, fellows, quick!" he seemed strangely excited.

But even as he spoke the train began moving rapidly again, while Bennings reassured them:

"'There'll be one more stop, gentlemen. As I was saying, we rode through the outskirts of our home town next night and our sheriff came out to meet us. A cottontail sat beside the road and I jerked out my gun and pulled the trigger five times; nothing but 'snap, snap, snap.'

"I looked at the sheriff and took out the shells and handed them to him. He turned half the colors of the rainbow, hung his head, and said in a voice so low I could hardly hear him, 'I'm an awful fool.' I thought of the coyote and I said, 'I also am a fool, but a special pet of Providence.'

"Toles was taking in the discovery with open mouth. 'Gentlemen,' said he, 'I am the king of long-eared beasts of burden. If this ever gets out against me, my doom is sealed. I'll plead guilty at my trial.'"

The train began to slacken speed. "What has all this blarney to do with us?" growled one of the men. "If you've made us miss our station by your cursed prattle, you old—"

He choked as his rage mastered him, and his face grew gray at the very thought of the possibility he had suggested. The train halted with an unusual jar, and a young giant made his way toward the group.

"This, gentlemen," from Bennings, "is where we get off."

Turning to the stranger who stood beside them, he asked: "Have you got the warrants, Gray? All right.

"These are our men, 'Butch' Cassidy, 'Knife' Graham, and 'Bull' O'Shea, wanted for systematically looting 'manifest' freight on different systems, with a few murders of trainmen on the side. They're a nervy gang to come within a mile of Uncle Sam's shores, but I suppose they thought they were safe because the Mexican government wouldn't extradite 'em.

"I passed orders to the conductor to cut off the smoker the minute we stopped at Juarez and shoot us across the line. Sent the note by the brakeman; under their very noses, too. Put the handcuffs on.

"On the way I told 'em of my first detail. They've just witnessed my last. Be careful there, Butch, I assure you *this* gun is properly loaded!"

RAILROAD MAN TALKS BACK.

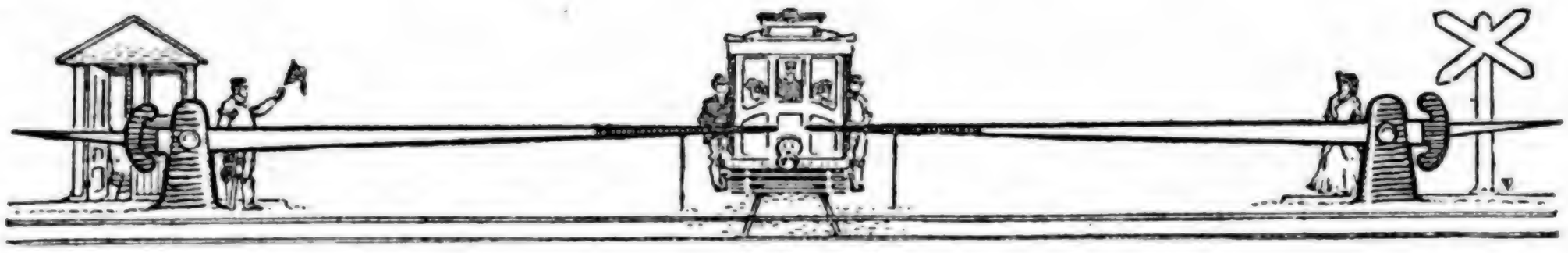
S. P.'s Assistant Passenger-Agent Suggests That There May Be a Few Things the Critics Do Not Know.

TALK'S cheap, but it takes more than hot air to run a railroad. This is the burden of a few remarks made recently by Paul Shoup, assistant general passenger-agent of the Southern Pacific, in criticism of the self-appointed railroad experts:

"He spends one day or two investigating transportation problems that three generations of shippers and railway employees and managers have struggled with. After a session of an hour with himself and a study of magazine and newspaper clippings, he formulates solutions that he hopes may be accepted by the public.

"He never had charge of a train in face of a mile wash-out in a storm, with an ax, a crowbar, and a lantern to make repairs. He knows nothing of the game of chess involved in keeping a dozen trains of constantly varying speed capacities moving on a single track over a mountain-top, against another dozen to be kept moving in the opposite direction.

"But in an hour's speech he can tell you that the railroad must be made to move its freight with unvarying expedition, or suffer. He does not consider that a railroad has not the slightest control over the destination of its own cars or the cars in its service. He does not realize that the shipper says where these cars shall go and gives them destinations all over the United States, and that the cars received by the road are largely dependent upon the directions of shippers in other sections of the country, maybe thousands of miles away."



Recent Railroad Patents.

BY FORREST G. SMITH.

Keeping Trolley-Poles Down to Business — To Guard Against Ice on the Semaphore Arm — Scraping Ice from the Trolley-Wires — How Broken Rails May Be Detected — Safety on the Grade-Crossings — Jogging the Engineer's Memory — To Sound a Warning in the Cab.

CONTROL TROLLEY-POLES.

When They Jump the Wire, this Device Will Prevent Their Flying Into the Air.

IN the present forms of trolley-poles, when the wheel leaves the wire the pole swings upward, and if the speed is high enough, the upper end of the pole is liable to strike and break the wire supports before the car can be brought to a standstill. Many complicated devices have been patented for releasing the pole after it has swung to a predetermined degree in an upward direction, but owing to the fact that most of them have been too complicated, they have not met with much approval.

What appears to be an extremely simple device for this purpose is disclosed in a patent (No. 883,217, March 31, 1908) issued to Thomas H. Mars, of Chicago, Illinois. Its simplicity and efficiency combined should result in its adoption, if it equals the claims of the specification. In carrying out his invention, Mr. Mars arranges upon the pole a spring; above this spring there is a collar to which are connected two arms pivoted to rockers mounted upon the stand for the pole.

The ends of the arms nearest the stand, or in other words their lower ends, are formed with shoulders which, under normal conditions, engage with spring-controlled detents, also arranged upon the stand. These detents complete the device, and when the pole swings up beyond the normal position, the detents are automatically pressed down, thereby releasing the pole and allowing it to drop almost to horizontal position.

The dropping of the pole is cushioned by the spring upon the pole, which, by the way, also holds the pole raised normally in proper position for engagement of the trolley-wheel with the wire. In order to restore the pole to its proper position, it is only necessary to pull down upon it to a slight degree and the detents will then reengage with the shoulders at the lower ends of the arms, as described above.

There are but three parts in addition to those now used upon the ordinary trolley-poles, and for this reason the device can be applied with very little expense.

SAFE DANGER SIGNALS.

A Device Which Is Intended To Prevent Semaphores from Showing White When Red Should Appear.

IN the present forms of semaphore signals, there is an element of danger in the fact that snow and ice collecting on the semaphore arm tend to swing it down to the safety position. Should any of the connections break under the weight, the arm will drop to the full safety position and serious results are likely to follow.

Semaphore signals have been devised which are so constructed that the collection of snow and ice will tend to throw the arm to danger position; in a patent (No. 882,928, March 24, 1908) there is disclosed

a signal of this class which is claimed to be a decided improvement over those previously patented.

In this device, which is the invention of Mr. Clarence W. Coleman, of Westfield, New Jersey, the signal lamp, which co-operates with the spectacles of the semaphore to give the indications for night signals, is located on the side of the signal post or support opposite that on which the semaphore blade is placed, and the spectacle-holding portion of the arm is located largely on that side of the pivot of the arm opposite to the side at which the blade or arm is located when at safety position.

By providing such a construction, any breakage of parts or connections due to the weight of snow or ice collecting on the arm or to other circumstances will result in a dropping of the arm to danger position and the display of the danger signal. The lenses or spectacles are, of course, so arranged that when the semaphore arm drops to danger, the red spectacle will be directly in front of the signal lamp.

TO CLEAN TROLLEY-WIRES.

Chicago Man Produces an Invention Which Will Strip Ice from the Wires Without Injury.

A NUMBER of devices have been invented for clearing trolley-wires of snow and ice so as to insure a perfect contact of the trolley-wheel. Such apparatus is usually in the form of a cutter which is designed to scrape the ice from the wire. One objection to this form is the danger of injury to the wire as a result of its constant use, the wire being in time worn out by constant scraping.

It has been proposed to construct trolley-wheels with very narrow grooves, but this plan is not feasible because of the fact that the wire binds in the wheel and so puts a hard strain upon itself. In a patent (No. 882,717, March 24, 1908) issued to Edmund M. Schollenberger, of Chicago, Illinois, there is shown an invention which embodies a means for breaking the ice from a trolley-wire without scraping the wire or binding it in the wheel.

In carrying out his invention, Mr. Schollenberger has the usual form of harp at the upper end of the trolley-pole, but mounts upon the spindle of the harp two disks which are ellipsoidal in cross-section and receive between them the trolley-wire. He also arranges upon the spindle and on the outer side of each of the disks a spring, the tendency of which is to force the disks toward each other so as to grip the trolley-wire lightly between them.

The springs are not strong enough to bind the wire, but have sufficient strength to hold the disks together with force enough to break any ice which may form upon the wire. It is claimed, in addition, that the device does not interfere with travel around curves, as the wire does not bind.

FOR BROKEN RAILS.

An Improvement in Electrically Operated Block Signals Which Gives Warning of Breaks in the Track.

QUITE an advance in automatic, electrically operated block signaling systems for railways is claimed for a patent (No. 884,158, April 7, 1908) issued to Winthrop K. Howe, of Buffalo, New York. Heretofore, it has been customary to arrange for the flow of one current of a signal circuit along one track, and another current along the other track so as to provide a means for actuating automatic devices to indicate to the engineer of an approaching train that the block ahead is occupied.

In the patent mentioned above, circuits are caused to flow along the two tracks or rails, and a second current is passed through the rails to indicate any breakage or lack of continuity in the track.

The ordinary signal currents have heretofore been caused to flow down one track rail and up the other. In addition to these two currents, the patentees have conceived the idea of providing for a third current which is to flow along both rails in the same direction, in addition to the ordinary signal currents, so as to indicate any breakage in the rails, the rails being in circuit with electrically operated semaphores which are set to danger position as soon as the break occurs.

TO GUARD CROSSINGS.

How Trains May Be Made To Lower Crossing-Gates Automatically as They Approach.

WHILE grade crossings are being gradually abolished, they will still be in existence here and there for years to come. It is therefore expedient, where such crossings are located, to provide for some automatic means for lowering the protecting

gates upon the approach of a train. A device of this character is disclosed in a patent (No. 883,546, March 31, 1908) issued to Frederick Kroll, of Sebewaing, Michigan.

The invention consists of a pair of rock-shafts, one of which is mounted to each side of the crossing to be protected and at a suitable distance therefrom, and trips which are carried by these shafts and are designed to be depressed by the flanges of car-wheels passing over them so as to rock the shafts and cause the lowering of the gates at the crossing. There are flexible connections, such as cables, between the shafts and the gates, the connections being passed over pulleys which are mounted within the casings for the gates and control weighted cables which are connected with the gates and counterbalance the latter.

The device is entirely automatic, the gates being lowered at the proper time before the arrival of the train, the lowering being so regulated as to permit teams and pedestrians to pass the crossing.

JOGGING HIS MEMORY.

How an Engineer May Be Reminded Constantly of the Next Meeting-Point on His Orders.

A VERY simple expedient for impressing upon the mind of an engineer the station at which another train is to be met, is disclosed in a patent (No. 882,802, March 24, 1908) issued to Oscar Stankey and Martin Christ, of East St. Louis, Illinois.

Their device consists of a casing which is to be arranged within the cab of an engine. In it is arranged a sheet with perforated characters or names indicating the various stations along the road. This sheet is wound upon rollers and travels in front of a pane of glass located in the front of the casing.

It is so arranged that the names of several stations will be exposed at one time and slides are provided for cutting off the rays of light from a lamp, supported within the casing, so as to darken all but one of the names. A slide of red glass is inserted in the casing in front of this name and the rays of light from the lamp are reflected through the red pane and the perforations which form the name of the station.

As soon as the engineer receives an order, he brings the sheet to position to expose the name of the station at which another train is to be met and covers the other station names so that the name of the first-mentioned station stands out in red before him until it is changed again.

It will be understood that the device acts simply as a constant reminder of train orders and that in this manner a number of wrecks may be avoided; in addition, its simplicity should recommend it.

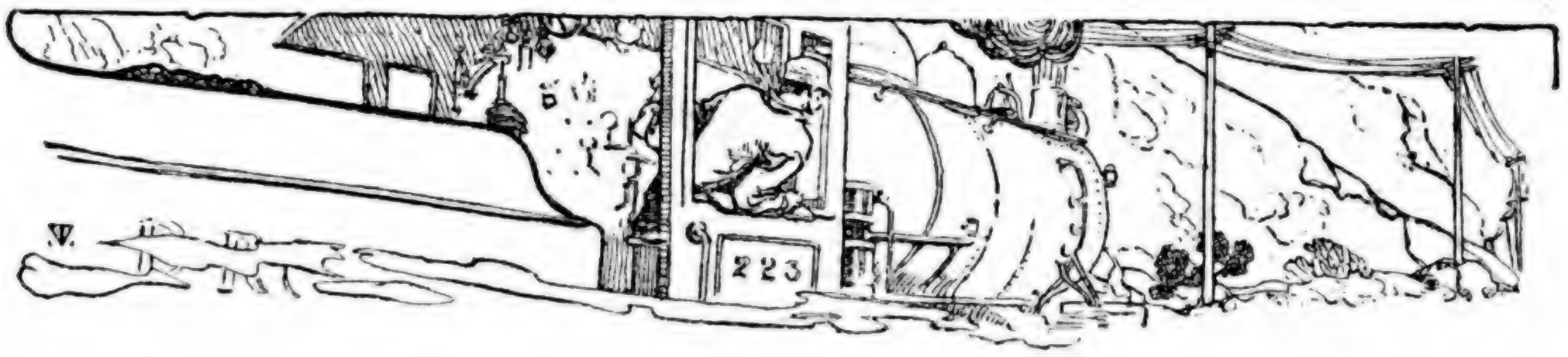
TO WARN THE ENGINEER.

If He Fails To See the Signal Against Him, a Whistle Sounds in the Cab.

AN automatic device for warning the engineer of a train that he is approaching a danger signal or an unsafe spot is disclosed in a patent (No. 883,940, April 7, 1908) issued to C. D. Deardurff and B. L. McDonough, of Newark, Ohio. In carrying out their invention, the patentees provide within the engine-cab a whistle which is mounted at the upper end of a compressed air supply-pipe in which there is interposed a valve.

The stem of this valve is connected with a cable which runs to a rock-shaft carried by the engine. Upon this shaft is arranged a trip designed to be struck by a track-trip set by the operator in the tower at which the danger signal is displayed. As soon as the operator is apprised of the fact that it is unsafe for an oncoming train to enter his block, he sets the track-trip by means of a suitable mechanism operable from within the tower.

At the same time he sets the danger signals—which may be in the form of semaphores or similar devices. Should the engineer of the oncoming train fail to heed the danger signals, the valve within the engine cab will be opened through the operation of the trips above mentioned and the whistle will be sounded, thereby enabling the engineer to stop his train in time to avoid a collision or other accident.



Around the Union by Rail.

BY GILSON WILLETS,

Special Traveling Correspondent of "The Railroad Man's Magazine."

IN the great Southwest, among the deserts and mountains and through the fertile valleys there runs an apparently inexhaustible "lead" of anecdote and reminiscence in which the railroad and railroad men play a part. Mr. Willets has told some of the yarns already that he collected there, and next month he will tell more.

Furthermore, he heard many more which considerations of space deny the light of print. Those that are here given are characteristic of the time and place in which they were told, and give a fair idea of the men who told them and of the circumstances surrounding railroading in the Southwest.

No. 7.—THINGS THAT HAPPEN EVERY DAY ALONG THE SANTA FÉ IN THE SOUTHWEST.

Tales of Light Comedy and Heavy Drama, Fast Runs and Curious Wrecks, Old Engines and Noted Engineers in the Last of the Territories.

"BO-ARD! Train for Barstow, Needles, Williams, Grand Cañon, Arizona, and New Mexico points, Albuquerque, Santa Fé, and the East!" So shouted Conductor Graves, of the east-bound California Limited (No. 4) at the La Grande station of the Santa Fé Railroad at Los Angeles, as the hands of the station clock pointed significantly near to six o'clock.

A pretty young woman came rushing down the platform carrying a baby and crying: "Oh, what shall I do? I'm booked for this train. Won't somebody take this baby off my hands?"

"Ain't it your baby, miss—I mean ma'am?" asked Conductor Graves.

"No, it isn't," snapped the young lady, evidently trying to force back the tears. "It's somebody else's baby. Don't know whose.

"A man and a woman asked me to hold it while they went off to do some shopping before the train started and they haven't come back. Oh, conductor, do please find some one to take this child off my hands."

But stern duty called Conductor Graves up the platform. He hurried to the head end and he and Engineer Jack Finlay, a burly Scotchman who has pulled Santa Fé trains for the last thirteen years, compared watches. Then Conductor Graves stalked down the platform again bellowing "Bo-ard!" for the second time.

The young woman with the baby was in the lowest depths of distress. Tears flowed down her cheeks as she went from one person to another on the sta-

tion platform imploring each one to "take this baby off my hands."

Finally she proffered the child to two young ladies who were bidding friends good-by. Both of them jumped back as if the "baby-carrier" had asked them to take hold of a red-hot stove.

Getting Rid of the Baby.

"Geewhitaker!" exclaimed Conductor Graves, addressing me behind his hand. "Those two girls work here in the Los Angeles offices of the Santa Fé. They're the prettiest and most popular girls in the treasury department of the line.

"They've got more beaus among Santa Fé men than you've got fingers. And now—a baby on their hands. Geewhitaker!"

"But I simply can't leave it on the platform," wailed the anguished young woman with the baby. "And yet I must get this train. Oh, what a mess I'm in!"

"Bo-ard!" In Conductor Graves's voice this time there was a note of finality. It was the third and last call. Jack Finlay, up ahead, moved the throttle out a notch and the big ten-wheeler became a thing of life—the train began rolling out.

Just then the desperate "baby-tender" shrieked with joy and hastened toward a young couple who came running up, fairly tossed the child into their parental arms, and sprang aboard the moving train.

"Well, you're a heartless man, conductor," she scolded. "Surely you could have held this train a minute or two and spared me that scene. At least you might have taken that infant off my hands."

"Ma'am — I mean miss," replied Graves gravely, "how could I know that the parents of that kid would return to claim it? I had to be governed by the law of self-preservation.

"What would Mrs. Graves have done to me? There are already seven little Graveses in my corral.

"You don't catch me taking chances with women," said Graves to me later, as the train drove on toward the desert. "Why, there was Aleck Mears, on the Needles-Winslow run. Only a few weeks ago (November, 1907) Aleck got in a horrible mess just for befriending a young woman.

"A good-looking girl boarded his train at Needles and at once began acting queer. She took off her hat and threw it out of the window. She parted from her gloves by giving them as a present to a fellow passenger in the tourist car.

"Then she sat perfectly rigid, staring out of the window, till Mears came through collecting tickets. He spoke kindly to her and asked her what he could do for her.

"She said she was starving to death. The candy butcher came through just then, and Aleck bought a cake of chocolate and gave it to her. Right at that point in the game the thing happened that gained for Mears the everlasting nickname of 'Hobson.'

"That young woman, without warning, jumped up, threw her arms around Aleck and kissed him square on his manly mustache.

Tough on Mears.

"Taken back! I reckon Aleck thought he was having the adventure of his life. What hurt him, though, was the loss of his professional dignity. For with the delivery of that kiss all the passengers in the car let loose howls of laughter, accompanied with such remarks as 'Pass it on, conductor!' 'Don't be selfish!'

"Aleck hurried on through the car without taking up any more tickets. It was an ignominious rout, for the girl pursued him relentlessly the whole length of the car, singing at the top of her voice:

"'I must love some one, and it might as well be you.'

"Had the girl been drinking? No. Just a case for the asylum. When Aleck's train reached Winslow he turned the poor girl over to the Santa Fé police there—and went off and hid.

"It didn't take the police long to discover that the girl was from San Bernardino. She had disappeared from her home and wandered from place to place on Santa Fé trains going east till she met Aleck.

"Say," concluded Conductor Graves, "if you see Aleck on the Winslow run just say 'Hello, Hobson!' or something

like that, and see how a railroad conductor who prides himself on his professional dignity looks when he'd like to bite a railroad spike in two."

How to Tell the Speed.

As the train sped on toward Barstow I went into the buffet smoking-car,

SHE WENT FROM ONE PERSON TO ANOTHER ON THE STATION PLATFORM IMPLORING EACH ONE TO "TAKE THIS BABY OFF MY HANDS."

where a number of passengers had already gathered. As travelers will when two or more get together to smoke, we quickly fell into conversation, finally coming to the subject of the speed of the train.

"Gentlemen, you have guessed the speed of this train variously from forty to fifty miles an hour, but I believe all of you are off nine or ten miles."

So remarked a man with a bronzed, weather-beaten face. "We are traveling over what Santa Fé men call the 'race-track,'" he continued, "hence we are going some. Now just one moment, please, and I will give you our exact speed."

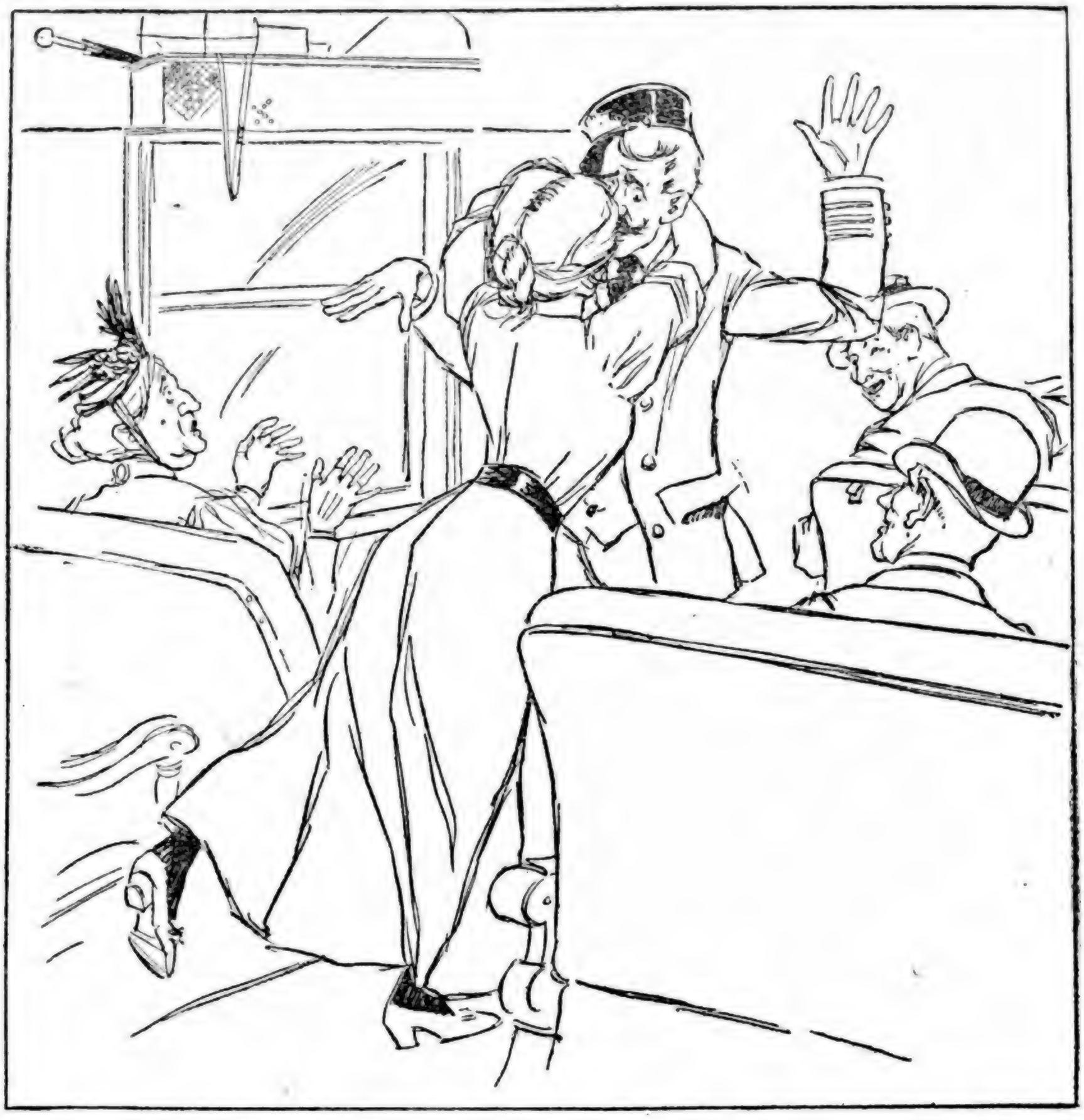
He took out his watch and gazed at it intently for some moments; then he said quietly: "Fifty-nine miles."

"I know," said one of the smokers. "You counted the telegraph-poles."

"By which remark," responded the bronzed man, "I judge that you did not observe me closely, or you would have noticed that I did not once raise my eyes from my watch.

"Besides," he resumed, "counting telegraph-poles is by no means a sure method of ascertaining the speed of a train. The poles, as a rule, are set thirty-six to the mile, but often a deviation is made from that rule and then the computation of speed is bound to be inaccurate.

"The method by which I determined



"JUMPED UP, THREW HER ARMS AROUND ALECK, AND KISSED HIM SQUARE ON HIS MANLY MUSTACHE."

the speed of this train, however, is practically certain. The process is purely mathematical. You can't go wrong.

"Do you doubt me? All right. Let's call in the conductor as referee."

Conductor Called to Referee.

All this time I felt sure that the bronzed passenger was a railroad man, for I had marked that, by way of ticket, he handed the conductor a card contained in a leather case having a celluloid or isinglass cover. (Later, I learned that he was something-or-other in the motive-power department.)

Graves was found and asked to umpire the game. Silence fell upon the company as both the bronzed man and the conductor glued their eyes upon their watches.

They seemed to be listening, however, rather than looking. I took out my watch and followed the second-hand. When twenty seconds had passed Conductor Graves closed his watch and, addressing the bronzed man, said:

"It's too bad you didn't have some bets up, for you've called the speed exactly. Fifty-nine it is, and I'll bet Jack Finlay's hand is riveted to the air-brake, because we're swinging round lots of curves."

And now for the explanation that the bronzed man volunteered.

"All rails are thirty feet long," said he, "excepting on bridges, where they are thirty-four feet. The extra length on bridges is to lessen the number of jars on the structure—that object being secured, of course, by a smaller number of joints.

"Now, if you fix your attention on the job in hand, even a half-trained ear

can detect the passing of the train over the joints in the rails and count them.

"Time the train for twenty seconds, and the number of joints, or rather rails, which you pass over in that one-third of a minute is exactly equal to the number of miles the train is traveling per hour.

"Don't comprehend? Calculate a bit. There are thirty-six hundred seconds in an hour. Now, multiply thirty-six hundred by thirty (the length of a rail) and you have one hundred and eight thousand. Divide that by five thousand two hundred and eighty (the number of feet in a mile) and you have approximately twenty, which is near enough.

"Let's see how that problem applies to the present case. If each rail is thirty feet long, there are exactly one hundred and seventy-six rails to a mile. If you count the rails for a minute right now you'd count nearly the whole of the one hundred and seventy-six rails, showing that you're traveling nearly a mile a minute.

"But the number of rails passed in one-third of a minute is just as good for the purpose as the number passed in an entire minute. In twenty seconds I counted fifty-nine rails.

"Hence, as the number of rails covered in twenty seconds, as I have said, is equal to the number of miles we're traveling per hour, we're making a speed of fifty-nine miles. Have I made the problem clear?

"There is another interesting phase to the speed business, gentlemen," pursued the bronzed representative of motive power, after we had at least pretended to understand his involved mathematics.

The Man Up Front.

"Who's at the throttle?" he asked, turning to the conductor. "Jack Finlay, eh? Why, he's the engineer who ran the Lowe Special over these very tracks at ninety-six miles an hour.

"Now, gentlemen, consider a moment what ninety-six miles an hour means in mental strain on an engineer. Do you realize that even fifty-nine or sixty miles an hour, our present speed, is about as fast as any engineman can think?

"I mean, of course, the kind of thinking that precedes some definite, immediate action. All right! Then imagine the thought capacity a man must possess who is driving an engine ninety-six miles an hour.

"Suppose, at any point in the running at such speed, a man's thought capacity is reduced even for the fraction of a second. What happens? Accident, of course.

"Traveling at such speed, a locomotive driver's thought must travel at least a mile ahead of his train. I hesitate to foist more figures upon you, so I'll go no further than to say that it has been estimated that if an engineer driving an engine at sixty or seventy miles an hour has a mental collapse, or mental vacancy, for the smallest fraction of a second a catastrophe may follow as a direct result.

"It is because of just such mental collapse on the part of the engineer at a time when he needs every bit of his thought capacity to meet an emergency that many accidents to fast trains occur."

Specials on the Santa Fe.

Later on, in the diner, after we left Needles, I purposely secured a seat at a table with the bronzed man.

"Up there in the smoker," I said to him, "you spoke of the Lowe Special over the Santa Fé when Jack Finlay pulled the train at ninety-six miles an hour. Am I wrong in believing that you meant the Scott Special?"

"No, you are right," he replied. "I get the specials mixed sometimes; we've had so many. You writing fellows forget that the Scott wasn't the only special that has made a national long-distance speed record on this line."

And he proceeded to give all railroad writers a verbal drubbing for "harping" on the Scott Special; "as if," he said, "that was the lone and only fast run ever made over our line. Why, we've had five or six other remarkable runs," he continued, "each one a seven-day wonder.

"For instance, we carried the Nellie Bly Special, in 1890, from 'Frisco to Chicago, twenty-five hundred and seventy-seven miles, in sixty-nine hours.

"You've read Kipling's 'Captains Courageous,' of course? Well, the run that Kipling immortalizes in that novel is said to be that of the Cheney Special, in 1895. Mr. Cheney was a director of the Santa Fé.

"He wanted to be put into Chicago in three and a half days from Colton, California. We put him into Dearborn Street Station in three days and seven hours."

The motive-power man told also of a third special, the C. P. Huntington, in 1899. Mr. Huntington, president of the Southern Pacific, flew into the Santa Fé office at- Pueblo, Colorado, and asked if they could land him in Chicago within twenty-four hours, a distance of 1,093 miles.

But Scotty Beat Them All.

Mr. Huntington's demand was met with a margin of nearly three hours, the train covering the 1,093 miles in 1,292 minutes.

A fourth special was that run for Mr. A. R. Peacock, vice-president of the Carnegie Steel Company. On the 27th of March, 1900, Mr. Peacock rushed into the Los Angeles office of the Santa Fé and asked to be hustled across the continent to the Windy City by midnight of the 29th.

His special pulled into Chicago two hours ahead of the time specified, or two days, eleven hours and fifty-six minutes for the whole run.

"But these figures mean more," concluded the bronzed man, "if put into comparison with the run of the Scott Special. Let us look at it this way. The Scott made the run from Los Angeles to Chicago in one day, twenty hours and fifty-four minutes.

"Now suppose that the Scott, Peacock, and Nellie Bly Specials all left Los Angeles on parallel tracks at the same moment, each maintaining the respective speeds actually made as I have described. What would be the result?

"At the moment that the Scott Special drew into Dearborn Station, Chicago, the Peacock Special would be over five hundred miles away, at about Grover, Kansas, while the Nellie Bly Special would be nearly six hundred miles back, near Emporia.

"All these specials that I've just told you about created sensations at the time for long-distance flights. Yet you writing chaps overlook these other achievements of our line when you hand out your everlasting stuff about the Scotty business, as if that was the only thing that ever happened in the way of time-annihilating feats on the Santa Fé."

"How is the bonus system of wages working on the Santa Fé?" I asked the motive-power man as we smoked our after-dinner cigars.

"Splendidly. The man most interested in making the system a success is Assistant Superintendent of Motive Power Jacobs. He told me that in a recent month the men on the main line earned twenty thousand dollars in extra wages.

"Earl Blood, chief clerk of the bonus department at Albuquerque, tells me that men in the shops at his division-point alone earned an extra six thousand dollars in one month; and Sydnor, the head of the bonus department at San Bernardino, said men in his shops earned over two thousand over and above their regular wages in four weeks.

"In regard to individual earnings by the bonus system, I know of one shop foreman who earned forty-five dollars and another twenty-eight in thirty days. Yes, the system is working splendidly.

"How is this extra money earned? It's simple. Every separate operation is recorded. That is to say, a register is kept of the efficiency of each man.

Extra Pay for Extra Work.

"When a man gets a marking of one hundred per cent he is paid twenty per cent of his regular wages as extra earnings. The system is, in short, an inducement to every employee to do his level best.

"In the case of our engineers and firemen the bonus system has not yet been adopted, but I have reason to believe it will be soon. The proposition is to give bonuses to enginemen and firemen in proportion to the number of miles they cover without the necessity for putting their iron steeds into the hospital.

"You see, a careful engineer can often prevent a break and consequent calls for repairs, and it is to furnish the enginemen with an inducement for exercising

SILENCE FELL UPON THE COMPANY AS THE BRONZED MAN AND THE CONDUCTOR GLUED THEIR EYES UPON THEIR WATCHES.

such extraordinary care that the bonus system is to be introduced.

"Let me explain how the system would work in an individual case among engineers. Take the remarkable case of engineer Currin, for example, on engine 1419 out of Winslow. For big mileage without any failures Currin possibly holds the record on the Santa Fé. He ran No. 1419 for the astonishing period of fifteen months without a single failure or a single delay, and without repairs worth mentioning. In that period of continuous service his engine covered seventy thousand miles, which means that Currin could take his engine nearly three times around the earth without a break-down.

"Now, in that fifteen months Currin—and also his fireman—under the bonus system would have had a marking of one hundred per cent each month for efficiency. Throughout that period, then, they would have earned twenty per cent of their wages as extra pay, amounting in the total to hundreds of dollars.

"Well, here's Gallup. I get off here. Ask some railroad man here to tell you how Engineer Joclyn earned ten merit marks for running a train without orders—pulling a burning car past a lot of oil-tank cars."

While we waited at Gallup, on the Arizona-New Mexican boundary, I secured the story referred to, a tale of a spectacular blaze that happened in the summer of 1907 and was still town talk.

Touch and Go.

On the night in question a hostler at the Gallup roundhouse suddenly yelled: "Comet comin' up the track!" His co-laborers looked and beheld what really appeared to be a ball of fire with a long tail of flame speeding up the rails.

As the thing drew near all saw that it was a car or train afire, they could not tell which. Presently the flying flame rushed past the roundhouse and up to the water tank, and Engineer Joclyn jumped off and shouted for help to save the train.

In the same breath he instructed his fireman to turn on the water from the tank.

"That was a narrow shave, boys," he said when the flames were out. "The car caught fire while standing on a side-track. I saw her blazing away in the middle of this string of cars.

"There was only one thing to do. My engine stood not far away with steam up. I rushed to it without waiting for orders from the despatcher, backed down on the sidin', and hitched up to the whole string of cars, knowing that the only way to save them was to get to this tank as quick as possible.

"You think it was easy? I had to pass through a lane of box cars, including a number of oil-tank cars, with flames shooting right and left from the burning car. I was scared stiff for fear of an oil-tank explosion that would have blown me and my fireman to Kingdom Come. But we got 'em, and here we are."

The sequel was ten "merit marks" to the credit of Engineman Joclyn for "saving property at the risk of his own life, without orders and at a time when he was off duty."

"Speaking of merit marks," said a Gallup railroad man, "I've just heard how one of our conductors, Charlie Dalton, earned ten by burglarizing one of the Santa Fé depots. Yes, sir, burglarizing.

"One night the engine pulling Dalton's train had a break-down and the train was put out of business. All Conductor Dalton was in duty bound to do was to sit down and smoke and wait for repair-men, thus causing bad delays on all trains behind him. But Dalton isn't the sit-down, smoke-up sort.

"What does he do but hurry up the track to the nearest depot, smash in the window with a crowbar, crawl into the building, cut the wires through to the train-despatcher, and report the engine failure. That's how Conductor Dalton burglarized a Santa Fé depot and earned a ten-merit mark."

The train sped on to Albuquerque, the "Duke City" of New Mexico, principal division headquarters of the Santa Fé Railroad in the last of the Territories. One night this place was startled by a whistle blast that lasted while one could count forty. Then came a pause; then another blast that lasted the same period.

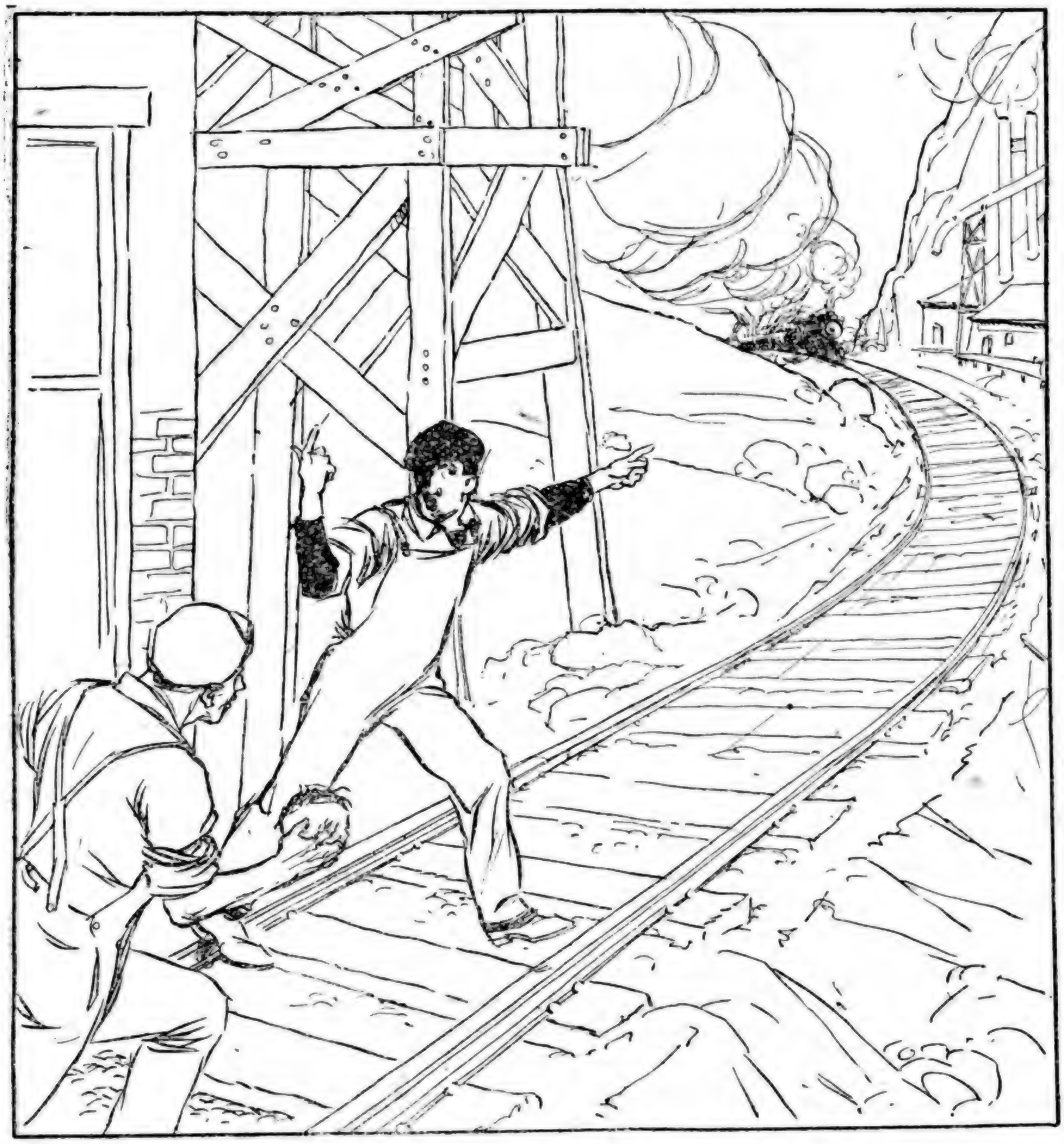
People in the new town of trolleys and banks and American hustle thought of fire. Mexicans in the adobe dwellings of the ancient Spanish town just outside the modern Duke City hurried out, *serape*-wrapped, into the moonlight of the June night to inquire the cause of the shrieking alarm.

On the tracks on Central Avenue, known of old as Railroad Avenue, stood whole train-loads of logs that had been brought down from the Zuñi Mountains to be made into doors and sashes. People who thought of fire had that wood in mind.

But the shrieking was not a fire alarm. The prolonged whistling was merely Master Mechanic Harlow's new way of calling out the wrecking crew. He was blowing the shop whistle for that pur-

pose for the first time in the history of railroading in Albuquerque.

Formerly Foreman Harry Little and his "break-down" gang had been summoned by call-boys. The method was found to be clumsy, and caused delays that could be averted by a whistling that



BEHELD WHAT APPEARED TO BE A BALL OF FIRE WITH A LONG TAIL OF FLAME SPEEDING UP THE RAILS.

the entire town could hear. So to-night, in quicker time than ever before, Foreman Little and his men were off to the wreck, at Ortiz station.

Only One Out of a Hundred.

It wasn't much of a wreck; merely a derailment that held up traffic four hours or more. But the occasion naturally led to recollections on the part of Santa Fé railroaders of other and more serious wrecks.

Among the stories told that night was one about the greatest wreck ever known on the old Santa Fé.

"The only survivor of that terrible mix-up," said a wrinkled and white-haired "long-service" man, "lives today in Los Angeles—'Miracle' Blakely. He's about twenty-four years old, but he can't tell you anything about it because it happened to him at too early an age.

"It was back in 1883. No wreck in the annals of Southwestern railroading has ever touched it either for thoroughness of effect or novelty of cause.

"On the night in question the Cali-

fornia Limited, with a helper engine, was climbing Tehachapi Pass—in the 'razor-back' mountain region of California—the double-header bucking the fiercest gale ever known thereabouts. Tom Blakely was at the throttle, and his wife and child were among the passengers. As he pulled toward Summit station Blakely was conscious that at times his train, instead of making progress upward, was actually being blown back down the grade. It was like a man trying to climb out of a cañon; every time he climbed one foot he fell back two.

"I don't know all this about Blakely's experience for a positive fact, because Blakely never told me about it; he couldn't. Still, we can assume that his experiences were something like I've suggested, for sure it is that before he reached Summit station the gale took literal possession of his two-headed train and blew it back down the mountain bodily.

"Gale's too tame a word; hurricane's better. And just as Blakely's engine lifted the train to the top of the 'razor-back'—well! it was like you or me would blow a match down an inclined board.

"THE BARREL OF A SIX-SHOOTER WAS POKED INTO HIS FACE. 'IS DINNER READY?' THE MASKED INTRUDER INQUIRED."

"Over a precipice the train toppled, and when we got to where the cars and engine lay with wheels up in the air we took out a hundred dead—and one live baby.

"The baby's the point of this yarn. Now you can understand why he's called 'Miracle' Blakely to-day. He was Engineman Blakely's own baby."

Field Day of Hold-Ups.

Railroad gossip along the Santa Fé included many stories of the pay-day of November, 1907, a day that will long be remembered by certain employees who

had the handling of cash. Nearly every division-point from Los Angeles to Albuquerque and Santa Fé became that day the scene of a hold-up—and in each case the persons held up were officers or employees of the road.

In the yards at Needles, Conductor Mullvana was choked into unconsciousness, robbed of over two hundred dollars in pay checks and cash, and thrown into a box car. In the station at Nebo, Agent Perrine was attacked by three bandits. He shot one dead and wounded the other two. At Redlands, Ticket-Agent Morton was twice set upon that pay-day evening by hold-up men.

The most amusing hold-up was that at San Marcial, New Mexico, on the Rio Grande division. I was on my way down that division to a point where I meant to make a cross-country trip over to Alamogordo.

When we drew into the San Marcial yards a traveling inspector of the Santa Fé suggested that we get off for a breath of fresh air. He led me to a deserted part of the yard and said:

"Here's where the car stood on the night the superintendent of this division, Frank Myers, broke the record for wrath in New Mexico. In his private car, standing right here, as I said, Billy, the cook, was getting dinner.

"It was the evening of the November pay-day. Word had gone forth that the men would be paid in cash instead of checks. The supposition is, then, that the bandit who entered the superintendent's private car that evening believed that the cash-box was stowed away somewhere in the superintendent's stateroom.

"While stirring the soup, or something of that sort, Billy looked up to find himself confronted by a man with a white mask over the upper part of his face. Also, the barrel of a six-shooter was poked into his face.

"'Is dinner ready?' the masked intruder inquired.

"'Ya-y-yas!' stuttered the frightened cook.

"'Say, yes, *sir*,' the bad man ordered.

"'Yas, *sah*,' obediently responded Billy.

"'Well, then, serve it,' ordered the bandit as he shuffled into the dining-compartment, sat down at the table, and compelled Billy to bring course after course, down to coffee and cigars.

"'Which is the boss's room? That one? Very well, I reckon I may as well slick up a bit.'

"Forthwith he threw off his ragged garments and, to Billy's horror, began shaving himself with the superintendent's own razor. Next, he arrayed himself leisurely in Superintendent Myers's finest raiment.

"Also he adorned himself with Frank's jewels, put Frank's best links in his cuffs, and inserted two of Frank's scarf-pins into Frank's most gorgeous neckties. Then he besprinkled himself with Frank's choice perfume, donned Frank's Sunday hat, helped himself to a new pair of Frank's gloves, and selected the best-looking of Frank's walking-sticks.

"'And now, Billy,' the bold, bad man said, 'let's get down to business. Where's the plunks—the cash-box?'

"'Ain't no such thing in this yere cyar, sah, no, sah,' Billy answered. 'Honest true, sah, no, sah, there ain't no money yere.'

"'Oh, very well, then, Billy. Just tell the superintendent that I called. By the way, I'll leave my card.'

"And in the alkali of the New Mexican desert that lay thick on Frank's dresser the bandit, using a forefinger for the purpose, traced these words:

"'Hungry, and ye fed me; in rags, and ye clothed me.'"

Nervy Deeds of Railroad Doctors.

One department of railroading that is more or less overlooked by general railroad writers is that of the physicians and surgeons. If one could get together the most notable achievements of railroad doctors, an article of absorbing interest could be written. Why not?

The saving of life in the sick-room or railroad hospital is sometimes quite as thrilling as the most daring rescue by men of the operating department in the field. I was reminded of all this in a letter from an El Paso (Texas) railroad official. He wrote:

> I read in the El Paso *Herald* that you have been securing stories of Southwest railroaders and have "lit" at Alamo-

gordo to write "how you have gathered you a bunch of railroad posies, only the cord that binds them being your own." May I suggest that you give some space to the life-saving phase of the work of the railroad surgeons?

For example, not long ago engineer Rixie of the Santa Fé, out of Winslow, Arizona, ran a fusee into his knee. Blood poisoning ensued, and only the heroic efforts of a railroad surgeon saved that engineer's life.

Another recent case was that of Southern Pacific Agent Sheppard, at Salton, California. He was bitten by a rattlesnake. A railroad surgeon worked on Sheppard two nights and a day without sleep and saved his life.

Now, before receiving this letter I had come upon a story of the splendid work of Dr. O. S. Brown, of the Santa Fé, at Winslow, Arizona, in saving the life of an employee who had been bitten by a rattler. As the letter suggests, the tale of Dr. Brown's battle with venom and how he defeated the deadly poison may prove of interest to railroad men.

Late in May, 1907, a Santa Fé trackman named Madigal was bitten on the little finger by a mountain, or bush, rattlesnake, the most venomous of the reptiles encountered by track-walkers in the Southwest. In a great fright and suffering excruciating pain, he rushed to the office of the timekeeper, who immediately placed ligatures on the arm above the wound. Then the man was taken to the office of Santa Fé Surgeon Brown, at Winslow.

Fighting a Rattlesnake.

Dr. Brown first of all complimented the timekeeper on his good judgment in making tight ligatures, thus cutting off the absorption of the poison. Then he got to work on the patient, trying a treatment all his own. It was a case of life or death, and those who watched the battle declared that it was quite as thrilling as any adventure down the line.

By the time that Madigal, the patient, reached Dr. Brown at four o'clock in the morning—the doctor having been hustled out of bed—the wounded arm was so swollen that it had burst open in several places. No pulse could be perceived in the left wrist and the man seemed dying.

Dr. Brown watched over him for two days and a night without sleep, when the patient was at last pronounced out of danger. All that time the doctor was making incisions, administering strychnin, immersing the wound in red-hot bichlorid solutions, and pouring whisky down the patient's throat. It was a fierce battle, but the railroad surgeon won.

One old Santa Fé railroader at Albuquerque, pointing to a switch engine, No. 2,377, running through the yards, said: "Look at old Skiddoo Seventy-seven. She had a historical haul here some months ago. She brought one of the pioneer engines of the Santa Fé in here to go on the scrap-heap, an engine that had been in service on this line for a quarter of a century.

Old Number One.

"That antique machine, that battered old hulk, had a stack as big as all outdoors and a boiler and drivers so small that you couldn't find 'em without searching. The rusty old thing was once used on the main line.

"Well, the pioneer engine lay here till along came an old Santa Fé man who had been a conductor back in the days when the line here was known as the Atlantic and Pacific. The old conductor's name was Harry Kuchendurfer; he worked out of Albuquerque twenty years ago, and left here, during the big strike, to go to South America.

"The other day he blew in, fresh from South America. 'What!' he exclaimed, 'put that old engine in the scrap-heap, the graveyard? Never! Why, that's old No. 1, ain't it?

"'She's got a story that's one of the strangest in the history of Southwestern railroading'; and he spun his yarn.

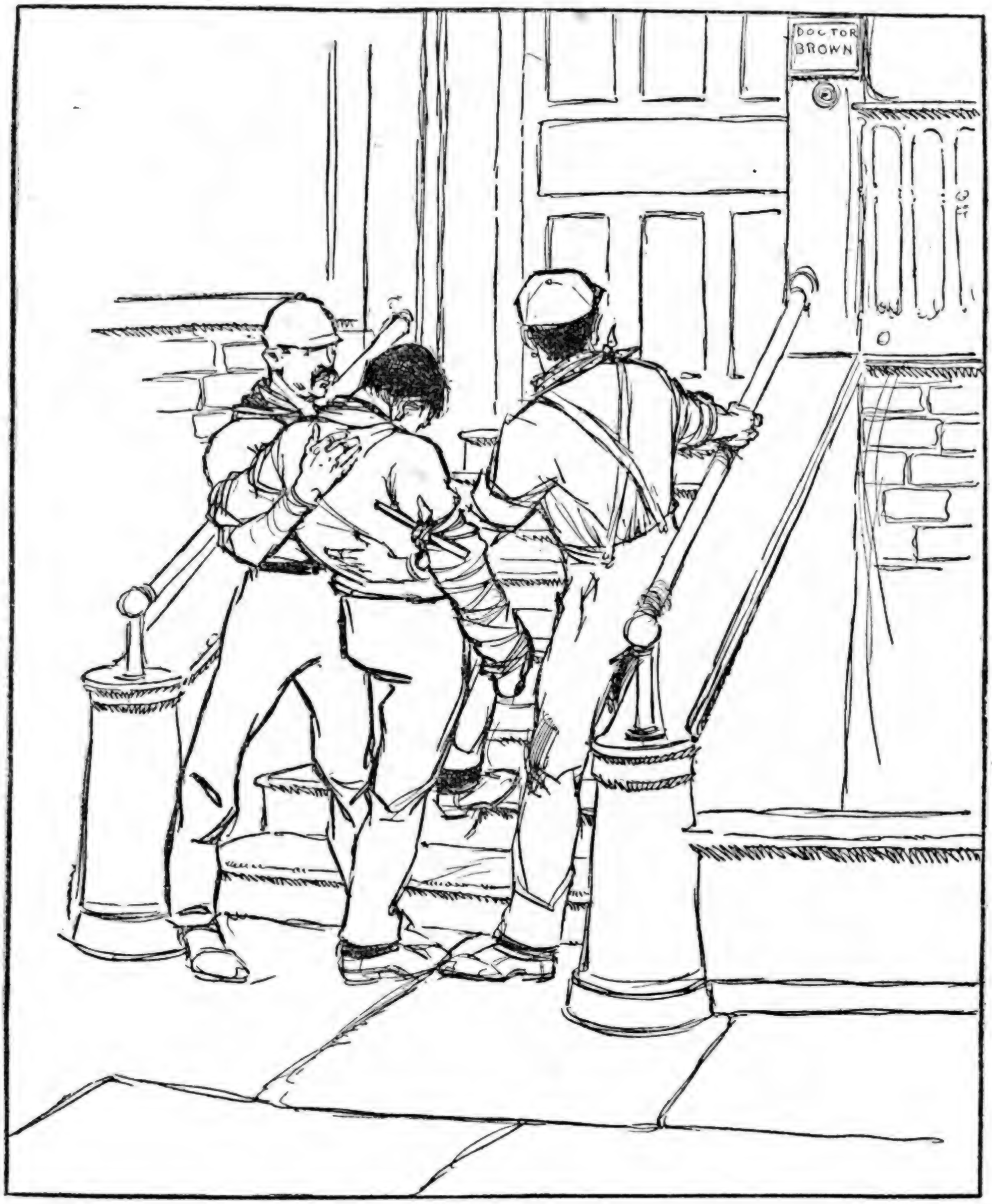
"'After No. 1 got too old for the main line she was put on mountain and lumbering work up through the San Francisco Mountains. Her engineer was Luke Mitchell. Luke was mighty proud of No. 1, and one day the old tin can proved worthy of Luke's pride in dead earnest.

"'It happened this way: Luke was

taking No. 1 up "light" to bring down a train of logs. When he got nearly to the top of the mountain—just when the world on the left of him was one vast abyss, a cañon running farther down toward China than any well-behaved cañon ought to—No. 1 went off the rails.

"'What did Luke do? Jump? Not he! He sat right at the throttle same as if No. 1 were still running on rails, though she was now running down toward China faster than she'd ever run up toward the logging camp. Down, down she ran, bumpety-bump, over boulders and peaks and rocks and stones and cliffs and tree-stumps and precipices, Luke all the time staying right on his seat, displaying, you see, the trust and confidence of a little child in the ultimate halting of his tin can.

"'And, believe me, his trust was not



LAST LAP OF A RACE TO SAVE A TRACK-WALKER FROM THE EFFECTS OF A RATTLESNAKE BITE.

misplaced. Just as No. 1 got to the edge of the most appalling chasm it had yet met in its downward course it sort of wound its legs around a big tree and hugged it tight, as if it never meant to let go.

"'Now, when Luke started down the mountain he was smoking his pipe. When No. 1 hitched up to that big tree on the edge of nothing at all excepting fresh air Luke was still smoking that pipe. When the last of the drivers stopped whirling round that tree Luke took the pipe from his mouth, turned to his fireman and said:

"'"It's a long walk back up the cañon, Johnny. Let's ride up. All we've got to do is to rig up a turntable, loosen No. 1 from this tree, turn her round so she'll point skyward, and she'll carry us back up the mountain, climb onto the rails, and go ahead like nothing had happened."

"'Luke's confidence wasn't so awfully misplaced, either, for when they got No. 1 back on the rails and into the hospital she recovered in astonishingly quick time from the shock of her attempt to reach China, was out in four days or so, and was as chipper as ever.

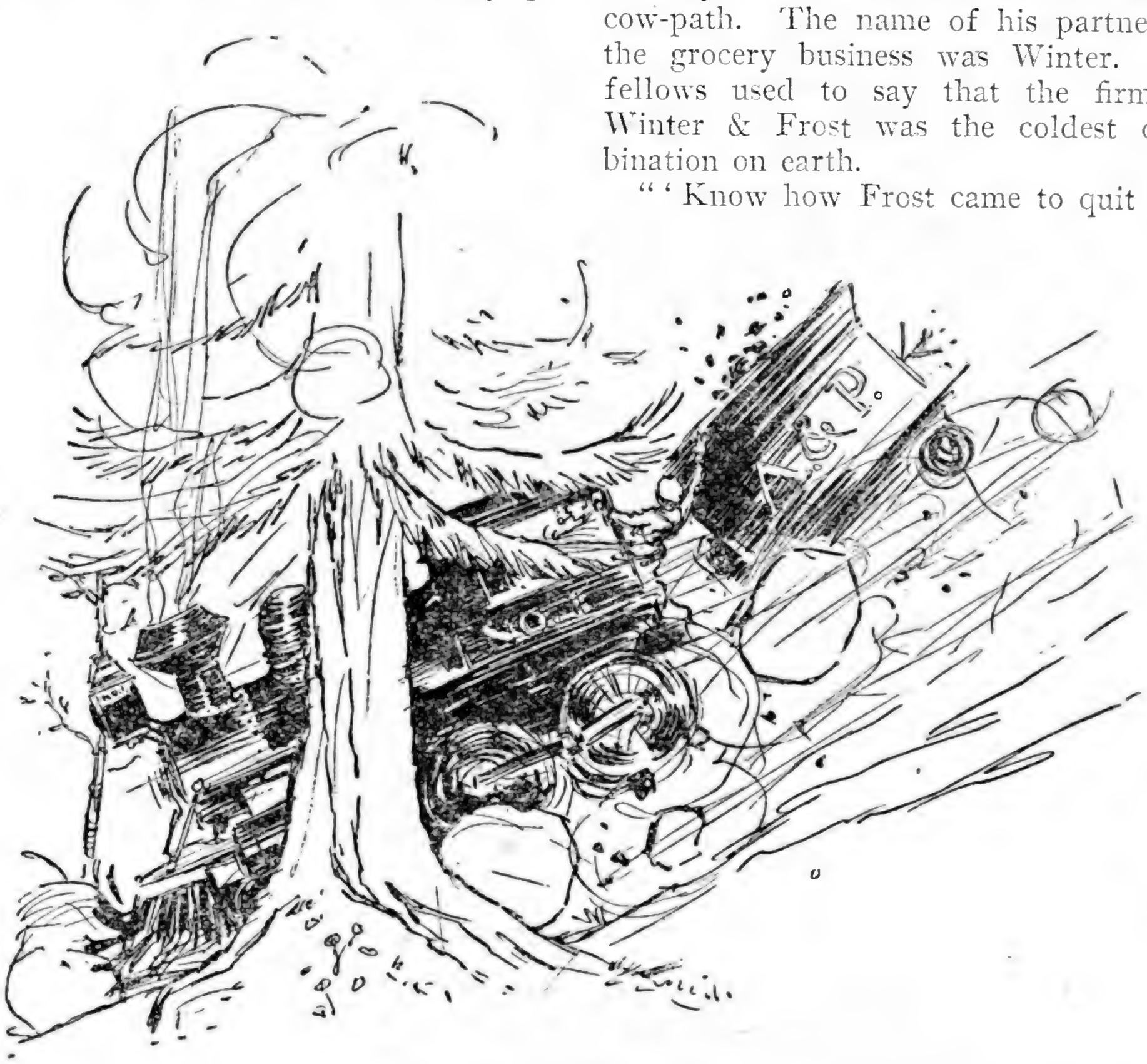
"'And now, put her in the graveyard?' concluded Conductor Kuchendurfer. 'No! She should go, instead, into the Santa Fé museum to be preserved as a historical exhibit.'

Men of the Old Days.

"And the old conductor got busy with the proper officials, and I'll bet that by this time he's convinced the Santa Fé powers-that-be that a bit of history in the shape of No. 1 is worth more than scrap-iron.

"Kuchendurfer remembered, too, all the old boys by name. 'There's old Conductor Frost, still running on this division,' he said. 'I knew Frost when he ran a grocery here in Albuquerque, in the days when Railroad Avenue was a cow-path. The name of his partner in the grocery business was Winter. We fellows used to say that the firm of Winter & Frost was the coldest combination on earth.

"'Know how Frost came to quit gro-



"'JUST AS NO. ONE GOT TO THE EDGE OF THE MOST APPALLING CHASM IT HAD YET MET IT SORT OF WOUND ITS LEGS AROUND A BIG TREE AND HUGGED IT TIGHT.'"

ceries and go to railroading? He said Winter froze him out.'"

So the chat with the old Santa Fé man led to the subject of long service among engineers.

"Talk about long-term engineers!" said the gray-haired railroader. "Why, there's Dave Lesher and Charlie Losee, they've both been engineers on this line for twenty-six years, and Heaven knows how many years they worked before that as firemen and such like. Each of 'em has run an engine over a million and a quarter miles, making a total mileage for just those two of about two and a half million.

"Another long-term man is Charlie Chambers, running on the branch to Phœnix. He did a stunt the other day that set railroad men's tongues in the two Territories a waggin'. It was a thrilling stunt, sure, in which Charlie proved that no emergency can make him lose his nerve.

"He was pulling passenger-train No. 4. As his engine poked her nose round a short curve south of Congress Junction he saw a loaded coal-car coming down the grade toward him at a terrific speed. He understood at once that the runaway car had broken loose from the freight-train ahead of him, and that time was precious.

"Then or never was the time to act. Charlie was running at fair speed for an uphill climb, but I'll bet the speed at which he shoved in the throttle and dragged the reverse-lever over established a new record for that part of the country. He was running backward about thirty-five miles an hour and had reached a siding at Forbes when the coal-car, coming forty miles an hour, overtook him.

"But instead of a general smash-up, all that happened was a slight shock and a smoke-box and pilot reduced to scrap. The train itself escaped damage.

"A passenger who was shaving in a rear car when the collision came went right on, and said afterward that he was not conscious that anything unusual was taking place except that the train was running back at a rate that wasn't according to strict rules. Just the same I wouldn't like to be on a train with a razor at my throat when anything of that sort happened."

Next month Mr. Willets stays in the same territory as this month, but goes back several years in point of time. In other words, he will tell us many tales of early days on the Santa Fe, when the old trail was still fresh in the minds of men. The stories are practically as they were told him by veterans of the service.

INDUSTRIAL ROLL OF HONOR.

Showing How Human Beings Risk Their Lives Instinctively for Their Fellows.

Athletic Lady Saves Two Helpless Girls.

AT Richfield, New Jersey, Miss Clara Scudder was the heroine in a life-saving feat by which two girls were rescued from what appeared to be certain death. Miss Scudder was walking along a path by the main road, when she heard the galloping of hoofs behind her, mixed with the screams of female voices.

Running into the road, she saw a light wagon, in which were two girls, swaying behind a madly careering horse. She dropped the bundles she held in her arms, and as the animal dashed past, sprang, with all her strength and skill, and seized the reins.

Then she let her weight hang on the horse's head, and when the animal reduced its speed she easily brought it to a stop, just short of the Morris Canal, toward which it was headed.

Brave Brakeman Electrocuted.

IN spite of the fact that he followed that most dangerous of occupations, braking on the railroad, J. O. Budd, of Fort Wayne, Indiana, survived all the perils of his daily work and gallantly gave his life for another almost within the quiet of his home.

He was eating supper with the other members of the household, when they were startled by vivid flashes of what appeared to be particularly intense lightning. They rushed to the door. The night was very dark, but clear, and the intermittent sparks and flashes seemed to come from the ground.

It was an electric wire that had fallen and crossed with another wire, and was swaying in the darkness. Budd took a lantern and courageously went out to trace the mysterious terror. Just as he found the dangerous wire he saw a little girl approaching.

Without a second's hesitation, he sprang forward to where the wire and the little girl were about to meet, and pushed her back, but the impetus of the leap was too great to prevent him from touching the deadly thing. He straightened up suddenly with a terrible horror written on his face. Then he said quietly, "I've got it!" walked a few steps, and fell dead.

Miss Cranston's Courage Disposed of Mad Dog.

LOOKING from the window of her home at Roseland, New Jersey, Miss Irene Cranston saw a dog behaving very strangely. It crawled along the hedge, and suddenly went into convulsions. Recovering, it ran out and snapped at a farm-hand who was passing, but the man managed to beat it off with an umbrella.

Believing that the dog was rabid, Miss Cranston went out to notify a neighbor, and as she left the house she saw her brother, seven years old, coming home from school, and saw the dog turn and charge for him.

When she reached the boy the dog had seized his coat, but she landed such a kick on the animal's ribs that he was forced to let go, and before he could recover the nervy girl had grabbed him by the hind legs with both hands and, swinging him around, brought the brute's head in contact with a stone wall with such force that its skull was crushed.

Then, turning to find that her brother was uninjured, she fainted.

Little Louis Zopplin Fireman in Embryo.

LOUIS ZOPPLIN was the seven-year-old hero of a Brooklyn fire recently. His mother was in the front room of her flat, when she discovered that the flat below was on fire.

Her first thought was for her children in the rear rooms, but when she tried to reach

them she found that the approach was cut off by the smoke and flames. All means of escape were also cut off. She could not get near the fire-escape, so she climbed out on the window-ledge, whence she was rescued by means of a ladder.

In the meantime, little Louis, finding that he could not reach his mother, picked up his ten-month's-old sister in his arms and struggled with her through the fast-gathering smoke to the fire-escape. It was a long pull, but the sturdy little fellow managed it, and when the firemen came seeking him, in answer to his mother's appeals, he was staggering down the steps of the fire-escape, with the baby clutched firmly to his little breast.

Mabel Swenson's Teeth Back Up Her Fine Nerve.

THE courage and coolness of a little girl at Nutley, New Jersey, recently, undoubtedly saved the life of her child companion. The children, about ten years of age, were crossing the railroad track when the foot of one of them, Minnie Arnott, was caught in a frog.

She could not release the foot, and her shoelace being tied in a knot, in her agitation she could not untie the string. A train was approaching in the distance, and the little girl became panic-stricken.

Then her companion, Mabel Swenson, threw herself down on the track, and with teeth and fingers wrestled with the knot to such good purpose that she managed to untie it and pull her almost fainting friend from the perilous position just as the train, with brakes grinding, dragged past.

Two Children Saved and a Big Price Paid.

AS an empty cab was being driven through East Twentieth Street, New York, recently, the horse was startled into running away by being pelted with stones by some boys. The driver lost control, but was regaining it when the rumbling of a train on the Second Avenue elevated railroad set the animal off at renewed speed, and the driver was thrown to the street.

Two little girls, playing on the street directly in the path of the frightened animal, became so confused that they were in imminent danger of being run over when a man named Rafael Gorteche sprang to the reins and hung on. He was dragged from his feet and tossed about, but he held on long enough to deflect the animal from its course and save the lives of the children.

Then he was hurled to the ground, but the horse's course had been so altered that it was brought to a halt by a collision with the plate-glass window of an empty store.

Gorteche was picked up unconscious, and with blood flowing from a wound in his head. It was discovered later that his skull was fractured, and grave fears for his life were entertained.

Human Life-Line To The Rescue of Kinsel.

TWO men, by their nerve and quick wit, saved another man from drowning in the lake at the Randolph Street pier of the Chicago and Duluth Transportation Company, at Chicago, a short time ago.

Paul Kinsel had fallen into the water and, being unable to swim, he did the next best thing—he yelled. The shout attracted the attention of H. T. Robinson, the asssistant general freight-agent of the company, and B. L. Burke, the traffic-manager.

Neither of the men can swim a stroke, so it would have been useless for either of them to do the hero act by diving into the dark waters, but both of them had plenty of resource and plenty of muscle.

Burke, who is a powerful man, dropped full length on the pier and, grasping Robinson by the ankles, lowered him to the water. As Kinsel rose for the last time, Robinson made a desperate grab as he hung in his precarious position and seized the drowning man. Then began the work of pulling ashore.

The position for all three men was a ticklish one. A slight faltering of the muscles and there would have been three helpless men in the lake instead of one. The feat was safely accomplished, however, and a crowd that had gathered in time to do the usual useful cheering act rose to the occasion nobly.

Rescue Number Twelve by Michael J. Burke.

COMMISSIONER OF CORRECTIONS COGGEY, a few months ago, pinned upon the breast of Michael J. Burke, mate of the department's boat Minnehannock, a silver medal, given by the Life Savers' Benevolent Association of New York, for rescuing Delia Beauchamp, a former chorus girl, from drowning. This is the twelfth rescue from drowning to be added to Burke's record.

A MERE INCIDENT.

BY HERBERT E. HAMBLEN.

A Slight Detail of "His Nibs's" Tour of Inspection through the Fire-Room.

"WELL, Mike, an' how's the new b'y?"

Mike waited to finish hauling the blue shirt over his head, and then replied:

"Oh, be Hivins, the finest in the wor-r-ld! Father Casey was in this mor-r-nin', an' he says ter me, 'Mike Farrel,' says he, 'ye have the biggest an' han'somest baby on the block, an' that's no lie,' says he.

"I'm worrited about Norah, though; she ain't a bit well," Mike continued, the happy look of the proud father giving way to the troubled one of the husband and provider.

"I don't like the way the docther looks at her," he said. "She's not sthrong, poor gyur-r-l. I had a bit o' money saved up for this, but Katy got diptheria an' that tuck it all, so now I haven't a cint; an' I'm owin' a good bit around, too.

"Ah, well," he continued philosophically, as he picked up the heavy slice-bar and tackled the first of his dirty fires, "it's good I have a stiddy job."

After the fires were cleaned and the fire-room washed down, Mike remarked to his mate:

"I ain't had a wink o' sleep these two nights; I'm fitter ter be home in bed today than afore these b'ilers, with this rotten coal; but I dassen't lose no time now for a spell."

The conversation was interrupted by the opening of the engine-room door—a bare crack. A hand and the grizzled beard of old Ferguson, the chief, protruded for a brief instant.

"Hey, ketch this!" he called in a stage whisper, as he flung his pipe into the yawning emptiness of the fire-room with a fatalistic confidence that was inspiring.

Mike nimbly saved the fragrant brier-root from disastrous contact with the stone-flagged floor, catching, at the same time, a glimpse of long blue sparks snapping about the commutator of the big dynamo. The sight impressed a sense of the cussedness of inanimate things even upon his obtuseness.

It seemed as if the entire plant always ran with clock-like smoothness and precision until the very minute the superintendent entered on his inspection tour; then the most unexpected things would happen, giving that fiery-tempered official occasion to berate all concerned. Now, Mike could hear his high-pitched voice, reading the riot act to the chief inside.

Hurriedly the firemen looked over their own domain, preparatory to the autocrat's appearance. The rough stools on which they were wont to rest when occasion permitted were hustled behind the boilers, pipes were stowed out of sight, odds and ends of waste gathered up, and the water-level in the boilers anxiously scanned. The coal-passer got out his ladder to dust off the boiler-fronts, while Mike and Darby industriously polished checks and feed-valves.

After half an hour, the tumult within having subsided, it was believed "His Nibs" had gone without bothering their department, an always hoped for, but seldom realized, experience.

Mike threw his brass-cleaning equipment in a corner and leaned against the wall. He was completely worn out. The fire-room was warm and the air heavy with evaporation from the wet floor. Almost immediately he dozed off, standing upright as he was.

Suddenly the engine-room door was

flung wide open. A tall, bony, stoop-shouldered man, his face nearly hidden by a fiery red broom of a beard, stood squarely in the doorway, both hands in his overcoat pockets, glaring savagely into the fire-room. Mike slept on, innocently unconscious of the brewing storm, and Darby dared not even drop a fire-tool to arouse him, for His Nibs was onto all such tricks.

The super's eye at once nailed the sleeping man. Not a facial quiver betrayed his intentions. Slowly, deliberately, he entered the fire-room and traversed its length, scanning every detail with a quick, comprehensive glance. The coal-passer slipped down from his ladder, intent on arousing Mike.

A sibilant "s-t-t" arrested him, and he turned to be transfixed by the glitter of the super's cold gray eye.

"Get back to your work, you!"

The superintendent retraced his steps swiftly, softly, like a cat stalking an unsuspecting sparrow. Darby and the coal-passer ceased to breathe. Mike's huge bulk, slightly relaxed, emitted a comfortable snore.

A long, bony finger shot out from the superintendent's side and bored a hole between Mike's ribs. The big fireman's eyes came open slowly, and, to a disinterested spectator, the transformation that passed over his features would have appeared comical.

"Hey, how long have you been here?"

"S-o-r-r?" asked bewildered Mike.

"How long have you worked here?"

"Goin' on eight years, s-o-r-r."

"What time do you get relieved?"

"At twilve o'clock, s-o-r-r."

"All right; when you go out, you stay out, do you hear?"

"Yis, s-o-r-r."

As the superintendent flitted away to deal to Darby and the coal-passer their respective doses of venom, it suddenly dawned upon Mike that he was discharged. The spirit of murder welled up in his heart, but he restrained it. Nobody had ever accomplished anything by an appeal to His Nibs, except to add to that amiable gentleman's gratification —but Mike's need was desperate.

For the sake of Norah and the baby, he would humble himself. Choking back the desire to kill, he feigned humility and approached the tyrant.

"Av ye plase, s-o-r-r, Mr.—"

"Get out—get out—I don't want any talk from you; your steam is two pounds low now."

"But, s-o-r-r, I on'y wanted ter ax ye—"

"Shut up—shut up, I tell ye—get away from me; you're drunk."

Having thus glibly pronounced the doom of a family, His Nibs hastened to the office of the chief lineman, his appetite for blood merely whetted.

As Mike packed up the traps that had accumulated in his closet during his more than seven years' incumbency, he kept muttering to himself: "An' me wid on'y wan day's pay airned."

When the relief came in at noon, Billy Doyle slapped him on the shoulder.

"Hello, Mike, what ye lookin' so blue about? Have His Nibs been troo?"

As Mike picked up his bundle and shambled toward the door, he replied wearily: "He have."

The Inside History of Great Inventions.

No. 4—STRIFE THAT MADE THE TYPEWRITER.

BY C. F. CARTER.

LET no one imagine that the typewriter has nothing to do with railroading. If there be any among you so deluded, inquire of any telegraph operator as to the evolution that has taken place since the day of the stylus, when messages were written laboriously, however swiftly, in long hand, and a weary wrist and the threat of writer's cramp were the reward of a long day at the receiving end of a busy wire.

Wherever modern business has gone the typewriter follows hard on its trail. It even leads the van in some cases, and its history is written in large and legible characters across our contemporary records. The story of its early days is not so well known, and for that reason we have decided to set it forth here that all may read who choose.

How Many Men, Struggling Hard for Many Years, at Length Evolved the Machine that Has Made the Old-Fashioned Scrivener a Thing of the Past.

ONE of the richest jokes in the arsenal of the paragrapher and the cartoonist is that about the generals, pugilists, and other bellicose persons who fight their battles with typewriters. Zest is added to this undying witticism by the palpably peaceful, even effeminate, character of the typewriter. Above all other machines, the typewriter would appear to be commercial in all its predilections and usages, and commerce has a horror of war, controversy, and litigation.

Yet, oddly enough, the typewriter owes its conspicuous position in the commercial life of the world, its very existence even, to one of the noisiest battles in all the history of business; a conflict unique among battles, for both sides won an overwhelming triumph. To an adequate appreciation of the story of this contest some knowledge of the genesis of the typewriter is essential.

It is on record in the English patent-office that Henry Mill, Esq., engineer-in-chief to the New River Water Company, of London, obtained a patent in 1714 for "an artificial machine or method for the impressing or transcribing of letters singly or progressively, one after another as in writing, whereby all writings whatsoever may be engrossed on paper or parchment so neat and exact as not to be distinguished from print."

This was the first attempt to produce a typewriter, and it was not a success.

Of course Sir Charles Wheatstone, the great English physicist, who was knighted for his achievements, which in-

Began in the April Railroad Man's Magazine. Single copies, 10 cents.

cluded nearly outdoing Morse in producing a practicable telegraph, had a try at the typewriter and almost succeeded in making a good one. The long list of near-inventions turned out by this brilliant genius would be pathetic, were it not for the fact that he was honored more for the things he didn't quite do than many another inventor was for the things he accomplished.

SEVERAL MODELS WERE BUILT, ONLY TO BE SMASHED BY THE DISGUSTED INVENTOR AS SOON AS THEIR UNFITNESS WAS DEMONSTRATED.

Wheatstone made his first typewriter in 1849. In 1851 he exhibited a typewriter at the Great Exposition in London. Three other typographs, as they were called, were shown at this exposition.

One was by Pierre Foucault, of Paris; another was by an Austrian named Marchesia, while the third was invented by William Hughes, governor of the Manchester Asylum for the Blind. None of these machines excited any interest, nor were they practicable.

From 1855 to 1860, in collaboration with Pickler, of Budapest, Wheatstone produced six different machines, which were marvels of ingenuity and which are still in working order at the South Kensington Museum. They were better than anything produced in that line for years afterward, but they did not meet the requirements of a commercially practicable machine.

Many Shots Near the Mark.

Charles Thurber, of Worcester, Massachusetts, tried to make a typewriter in 1843. He produced a machine with a set of type-bars arranged in a vertical position around a horizontal brass wheel, sixteen inches in diameter, revolving around a central post. It would write, but that was all that could be said of it.

Then A. E. Beach, also of Worcester, after tinkering at the subject for nine years, produced, in 1856, a writing-machine which embossed characters for the use of the blind. Beach's machine was the first to evolve the idea of a basket of levers arranged in a circle, so generally adopted afterward.

Dr. S. W. Francis, of New York, took up Beach's machine and added a sort of pianoforte action to the levers. Thomas Hall, of New York, patented a typewriter in 1866, on which he could write

four hundred letters a minute, which is fair speed for the ordinary operator on even a modern machine.

Still, no one had hit upon the correct idea for the typewriter. That idea was the product of a course of evolution, extending through years, and involving an incredible amount of study and experiments. No machine ever looks so simple before it is invented as it does afterward.

The first event in the chain which led to the typewriter was the invention by John Pratt, of Alabama, of the "pterotype" in 1864. Pratt was a Southern lawyer and journalist who went to England, where, after several years of effort, he produced the first working typewriter that was ever manufactured and sold. Pratt's pterotype was exhibited at the Society of Arts, the Society of Engineers, and the Royal Society in London in 1867.

Pratt's machine came the nearest of any up to that time of fulfilling the requirements of a typewriter by which any one of the type could be brought to a common point at the will of the operator and made to print a legible character at that point; which would feed the paper across that point at proper intervals, and bring the paper back to the starting point and make proper intervals between the lines.

His typewritten application for a United States patent, which was granted in August, 1868, has never been excelled in spacing and alignment.

A dozen or so of Pratt's machines were made and sold in England. One was purchased by Sir Charles Wheatstone, and another by Dr. Bence Jones, author of the life of Faraday. Pratt was the first to use a compound motion and thus utilize several rows of type arranged on a wheel, the first to apply an escapement to a feed motion, and the first to use a trip-hammer action in a wheel machine.

Naturally, those first machines were not developed quite up to the practical, every-day stage. Pratt, however, followed the matter up faithfully. On November 14, 1882, he obtained a patent for a typewriter which he sold to J. B. Hammond. He may, therefore, properly be called the pioneer in producing the commercial typewriter.

Descriptions of Pratt's pterotype were published in a number of English papers and periodicals in 1866. One of these attracted the attention of Christopher Latham Sholes, collector of the port at Milwaukee, since popularly known as "The Father of the Typewriter." Sholes was a printer, who had gone to Wisconsin in the early days, where he had achieved distinction as an editor, publisher, and politician.

He was prominent among the founders of the Republican party, had served several terms in the State Senate, and had been postmaster and commissioner of public works in Milwaukee.

Sholes was devoting all his spare time to trying to invent a numbering-machine in cooperation with his friend, Samuel W. Soule, an old printer, when he read the article on the pterotype. He saw at once

the possibilities of a writing-machine, so he and Soule abandoned their numbering-machine and began work on a typewriter.

Sholes became an enthusiast on the subject, and devoted his entire time to the task. Soule worked with him for a time, and so did Carlos Glidden. The first crude machine, finished in 1868, was so far short of success that Soule became disheartened and gave up. Glidden dropped out soon after, leaving Sholes to work alone.

Men Who Delivered the Goods.

Several models were built, only to be smashed by the disgusted inventor as soon as their unfitness was demonstrated. But each failure only made him the more determined to succeed.

He abandoned all other pursuits, and concentrated his energies on the typewriter. When his money ran low he put in longer hours on his experiments.

One of Sholes's oldest friends was James Densmore, who had also gone to Wisconsin in the early days and won distinction as an editor. Feeling the need of something more substantial than local fame, Densmore had hurried to Meadville, Pennsylvania, in the first flush of the oil excitement, where he was soon coining money in the oil business.

To Densmore, then, Sholes wrote about his typewriter experiments, and what he hoped to accomplish. The former had such unbounded confidence in his friend Sholes that when he was offered a quarter

interest in the typewriter for a thousand dollars, he accepted at once, although the typewriter was then nothing more than a nebulous idea in Sholes's brain.

Densmore's money, suggestions, and encouragement did a great deal to enable Sholes to bring out his invention. It was Densmore who christened the machine the "typewriter," the name by which it has been known ever since.

Another friend to whom Sholes acknowledged indebtedness for impartial criticisms and encouragement that did much to help him over the rough places was James Ogilvie Clephane, a Washington lawyer and promoter, who afterward discovered and brought out Ottmar Mergenthaler, the inventor of the linotype.

Sholes struggled patiently through the weary succession of failures and disappointments that usually falls to the lot of the inventor. His first patent was granted June 23, 1868, but it was not until 1871, after he had patiently built thirty different models, that improvements which really held out hopes of commercial success were devised and patented.

In another two years enough progress had been made to warrant an attempt to market the machine. Sholes was anything but a good business man. Densmore was successful in business, and was something of an inventor himself, but he was of a taciturn disposition, and his was not at all the sort of temperament for the promotion of a new industry, and he knew it.

He also knew exactly the man that was needed—his friend, George Washington

Newton Yost, who was also prospering in the oil business. Yost had a large stock of enthusiasm, but he was also well endowed with good sense.

A Salesman Appears on the Scene.

This combination made him remarkably successful in converting others to his own views. He was an ideal salesman and promoter. He saw more millions in the typewriter than in oil the moment Densmore's proposition was unfolded to him, so he closed out all other interests and switched his enthusiasm to the new venture.

A contract was made with E. Remington & Sons, manufacturers of rifles and small arms, at Ilion, New York, to make a thousand typewriters, with a contingent clause that twenty-four thousand additional should be made if required.

Sholes sold his interest for a small sum. He was so conscientious about his bargain that several improvements he invented afterward he gave to the purchasers of his patent without further compensation.

Sholes's machine would write, but it was so far from being all that it should be that it was necessary to turn it over to a corps of expert mechanics, under the direction of W. K. Jenne, at the factory at Ilion, who worked several months trying to develop a marketable machine.

Still another of Sholes's friends, who was destined to play a part in the evolution of the typewriter, was Walter J. Barron, who was also in the oil business at Meadville. Barron was something of an inventor, having designed and built the first tank-cars ever used for the transportation of oil in bulk.

When he heard what Sholes was doing, he too became an enthusiast on typewriters, and tried to make one himself. Ultimately he did produce the adjustable type-bar and hanger, the carriage, letter-spacing mechanism, carriage-guide, indexes, and ribbon movement now used.

His first and most important service in the cause of the typewriter, however, was to tell his brother, Ernest R., about it. The latter was so keenly interested that, as soon as he heard that the machines were to be manufactured at Ilion, he hastened up there and applied for a job.

He was set to work April 20, 1874. Machines numbers one and two had already been completed by the staff of expert mechanics, but they would not do the work. The experts had not overcome the mechanical defects in Sholes's model.

Barron was allowed to choose two helpers, and set to work on number three machine. It was finished and sent to the New York office of Densmore & Yost, and was the first machine to go into actual use.

It had a treadle to take the carriage back. This arrangement was soon superseded by a lever at the side, worked by a catgut, which often broke. By the end of the year four hundred machines had been sold.

So secure was the faith of Densmore & Yost in the future of the typewriter that they kept a sharp lookout for all patents of value connected with it, for a legion of inventors took up the subject as soon as it was known that one man had made a success with a writing-machine. Being shrewd buyers, they were able to pick up at a low figure the patents necessary to a control of the typewriter manufacturing business.

An Improvement No One Wants.

But they were destined to meet with some very disagreeable surprises. There was a strong prejudice against a machine which threatened to take the bread out of the mouths of thousands of clerks. Besides, no one believed the machines could do what was claimed for them, and no one cared to make a practical test of it.

Samples of the work and abundant advertising matter were sent out, agencies were established, and energetic salesmen were sent forth as missionaries to proclaim a new era in business methods. An exhibit was made at the Centennial Exposition, where it excited great wonder. Still, in spite of everything that could be done, the business world would not take to the typewriter.

Late in the autumn of 1876 Yost went in person to Cincinnati to establish an agency. Through his own extraordinary energy a hundred machines were sold by the end of the year, bringing the grand total up to three thousand machines sold in two and a half years.

The most serious part of the outlook was that the machines would not stay sold. Through imperfections in design and faulty workmanship, three-fourths of them broke down and were thrown back on the hands of the makers.

A crisis in the affairs of the typewriter was reached by the end of the year 1878.

YOST, AS THE SPOKESMAN FOR THE FIRM OF DENSMORE & YOST, SAW TO IT THAT THEY OBTAINED MATERIAL FOR A "GOOD STORY."

The funds of Densmore & Yost were about exhausted. They had done everything that tireless energy and business shrewdness could suggest, and now imminent failure stared them in the face.

A council of war was held. It was evident that the world, according to immemorial custom, would refuse to accept an improvement that it needed except under duress. The question was, how could compulsion be brought to bear?

The collection of patents that the firm had been accumulating was examined. It was evident that they could evolve a typewriter different from the one they were vainly trying to sell, yet near enough like it to afford a basis for suits for infringement.

A Made-to-Order Fight.

A telegram to Ilion brought Ernest R. Barron, then the most expert of type-writer workmen, and Franz X. Wagner, a very clever German mechanic, to New York. Yost set to work with these two, and in four months had produced the Caligraph typewriter.

It was a good machine, but it was so clearly an infringement on the original writing-machine that the instant he emerged from his retirement Yost brought suit against himself for this flagrant violation of the rights of himself and his partner.

When the reporters, who had received intimations that sensational developments

in the typewriter situation were pending, dropped in to learn the particulars, Yost, as the spokesman for the firm of Densmore & Yost, saw to it that they obtained material for a "good story." And when the newspaper men went over to the Caligraph headquarters to hear the other side, a trusted confidential man, acting as representative of the new company, gave out still more lurid details.

So cleverly was the affair managed that even the employees of the rival concerns did not suspect that both were owned and managed by the same men. The press resounded with the wordy warfare between the opposition typewriter companies. Whenever the flood of copy showed symptoms of subsiding, a new suit was begun or fresh charges were brought out.

The employees of the rivals became zealous partizans in the strife. The mechanics wrought with more care and skill than they had ever used before, so that vastly better machines were turned out; while the salesmen sat up nights studying how they might get ahead of their hateful contemporaries.

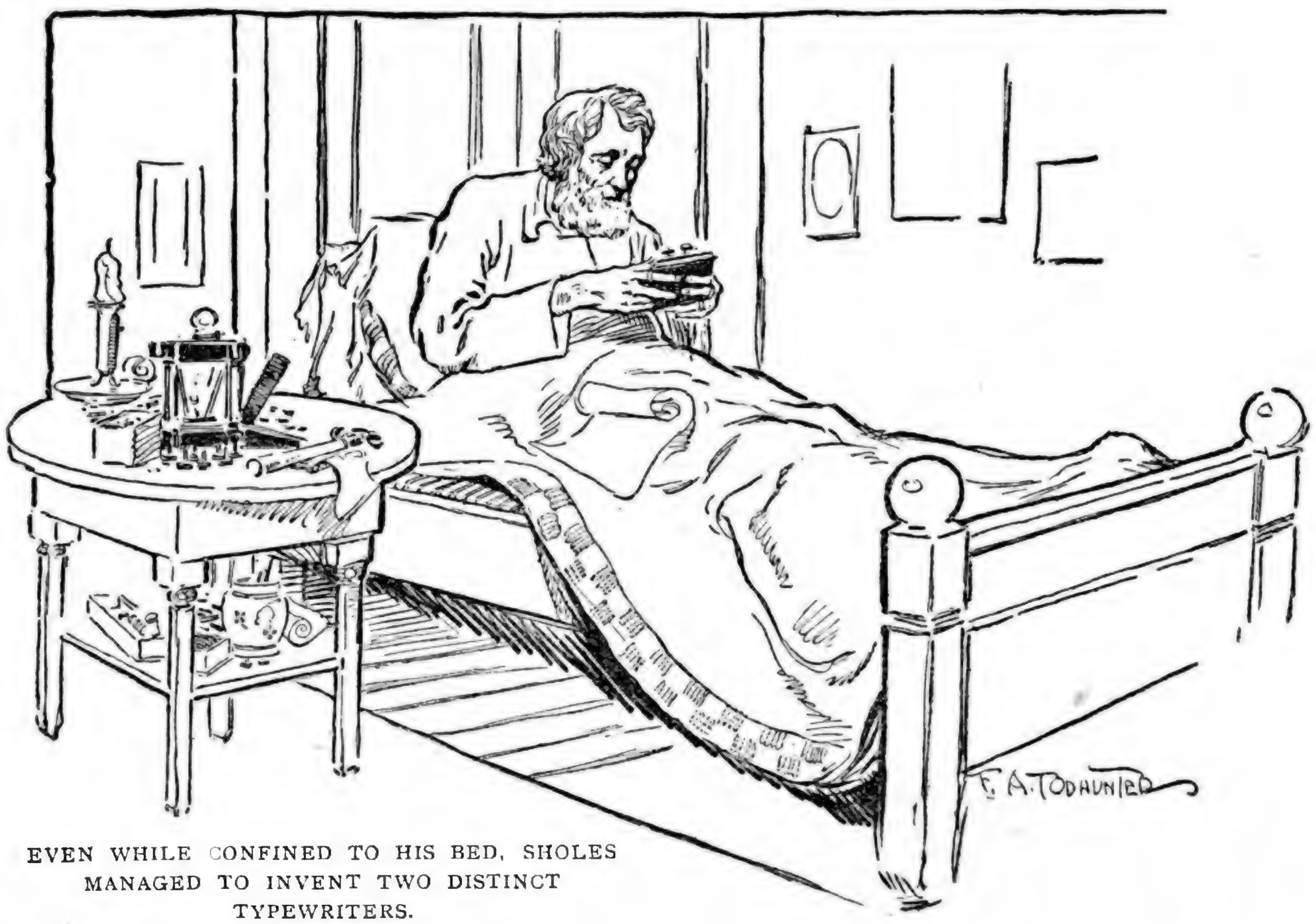
New life was thus put into the typewriter campaign, so that the fullest advantage could be taken of the wide publicity secured. The public began to think there must be something in a machine that two great corporations were quarreling so madly over.

What had been sinking into unmistakable failure was, in a few months, turned into triumph. Sales began to pick up, and grew by leaps and bounds until every nationality with a written language was using the wonderful machine that had put an end to scrivener's palsy and wrote four letters where one had been written before. When the suits for infringement had served their purpose they were quietly settled by agreement of counsel, and no one was any the wiser for years afterward.

A Constant Process of Change.

The close of the period that saw the typewriter fairly launched on its conquering career ends only the first chapter in the story of its evolution. Those early machines must have been miracles of imperfection, since they seem to have been susceptible of so many improvements.

No fewer than two thousand three hundred and eighty separate United States patents have been issued for typewriters and parts and accessories thereof. Noth-



EVEN WHILE CONFINED TO HIS BED, SHOLES MANAGED TO INVENT TWO DISTINCT TYPEWRITERS.

THE ONLY INVENTION IN THIS CONNECTION THAT HAS SURVIVED ALL CHANGES IS THE TYPEWRITER GIRL, THE FIRST OF WHOM WAS HIRED BY L. A. CRANDALL.

ing seems to have been left untouched that was invented by Sholes.

The scheme of placing upper and lower case letters on one type-bar, and bringing either into use at will by means of a shift key, was introduced by Byron A. Brooks, of New York, an author, editor, and stenographer, who saw the advantages of the typewriter as soon as it was placed on the market.

Brooks himself afterward invented four different writing-machines, and helped develop the linotype. The automatic ribbon-reverse was invented by Charles Spiro, another New York author.

Even the universal keyboard, which is merely a certain arrangement of the letters, was the product of months of hard study by a separate inventor. Alexander Davidson, a mechanic and surveyor from West Virginia, went to Springfield, Illinois, in 1864, where he opened a commercial school which was so unusual in character and methods that the Legislature of Illinois once visited it in a body.

When Davidson first saw the typewriter, in 1875, he thought it would be a good thing to have. But after he had bought one he found so many imperfections that he set to work to improve it. One thing that particularly displeased him was the arrangement of the keyboard.

By long and elaborate calculation he completed a table showing the relative value of the letters of the alphabet. He found that the letter "e" was used twenty thousand one hundred and sixty-two times, while the letter "i" was being used fifteen thousand three hundred and fifty-seven times, and the least valuable letter, "j," was being used three hundred and twelve times.

With the aid of this table, Davidson assigned positions to the various letters according to the frequency with which they were used, the efficiency of the fingers, and the accessibility of the keyboard. The arrangement was so satisfactory that it has been given the prefer-

ence over all others. Davidson was one of the early workers on the original typewriter, and was associated with Densmore & Yost in the development of the machine.

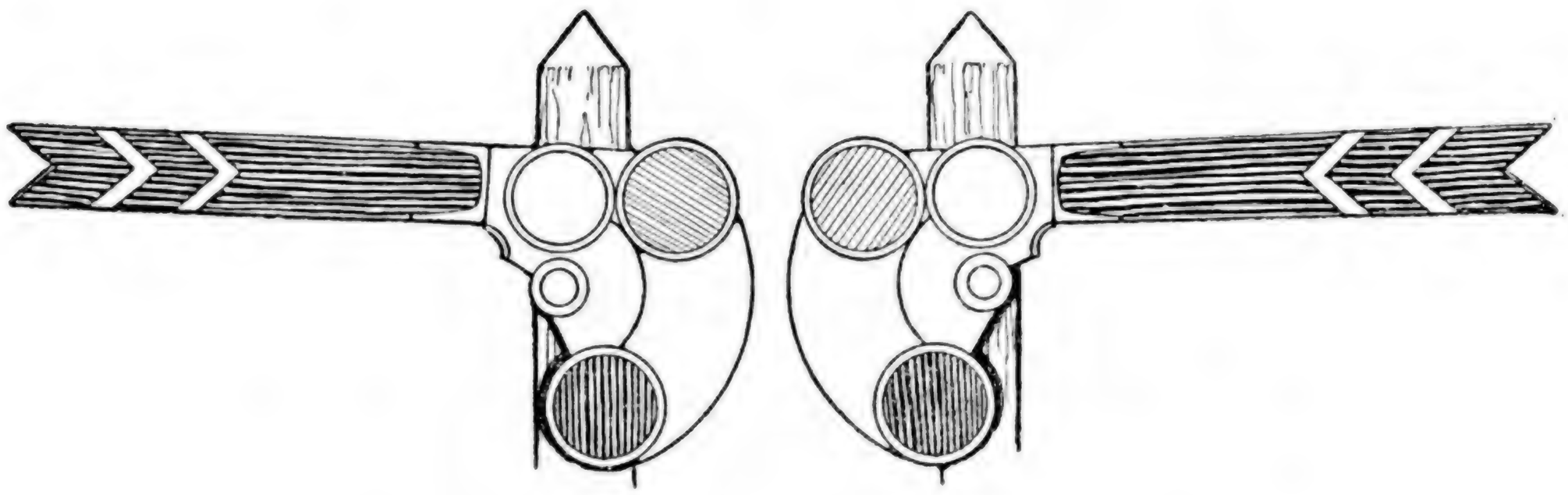
Densmore and Yost made fortunes out of the original typewriter, and sold out. Each then invented a typewriter of his own, and set to work to make another fortune.

Sholes, who did not make a fortune, could not abandon his habit of invention. He was an invalid for the last two years of his life, but even while confined to his bed he managed to invent two distinct typewriters.

An interminable list of other writing-machines was brought out, one after the other, each of which was superior to all others, but most of them quickly retired to the oblivion whence they came.

The only invention in this connection that has survived all changes is the typewriter girl. To L. A. Crandall, himself an inventor and manufacturer of writing-machines, belongs the immortal honor of inventing the idea which led to her employment. He secured for the first typewriter girl her first position, thus setting a fashion which has been a greater boom to the newspaper humorist than even the joke about typewriter belligerents.

From the typewriter to the sewing-machine! That is the leap that we are to take for the next number. And yet it is not such a long jump when you consider the importance of these two inventions in the feminine world. The sewing-machine is a typical example of the product of a man who was an inventor always and a business man never.



GOOD TABLE MANNERS.

How a Western Brakeman Shipped His Live Stock on the Strength of a Good Bringing Up.

"WHEN I was connected with a certain Western railway," says a prominent officer of an Eastern line, "we had in our employ a brakeman who, for special service rendered to the road, was granted a month's vacation.

"He decided to spend his time in a trip over the Rockies. We furnished him with passes.

"He went to Denver, and there met a number of his friends at work on one of the Colorado roads. They gave him a good time, and when he went away made him a present of a mountain goat.

"Evidently our brakeman was at a loss to get the animal home with him, as the express charges were very heavy at that time. Finally, however, hitting upon a happy expedient, he made out a shipping tag and tied it to the horns of the goat. Then he presented the beast to the office of the stock-car line.

"Well, that tag created no end of amusemust, but it served the end of the brakeman. It was inscribed as follows:

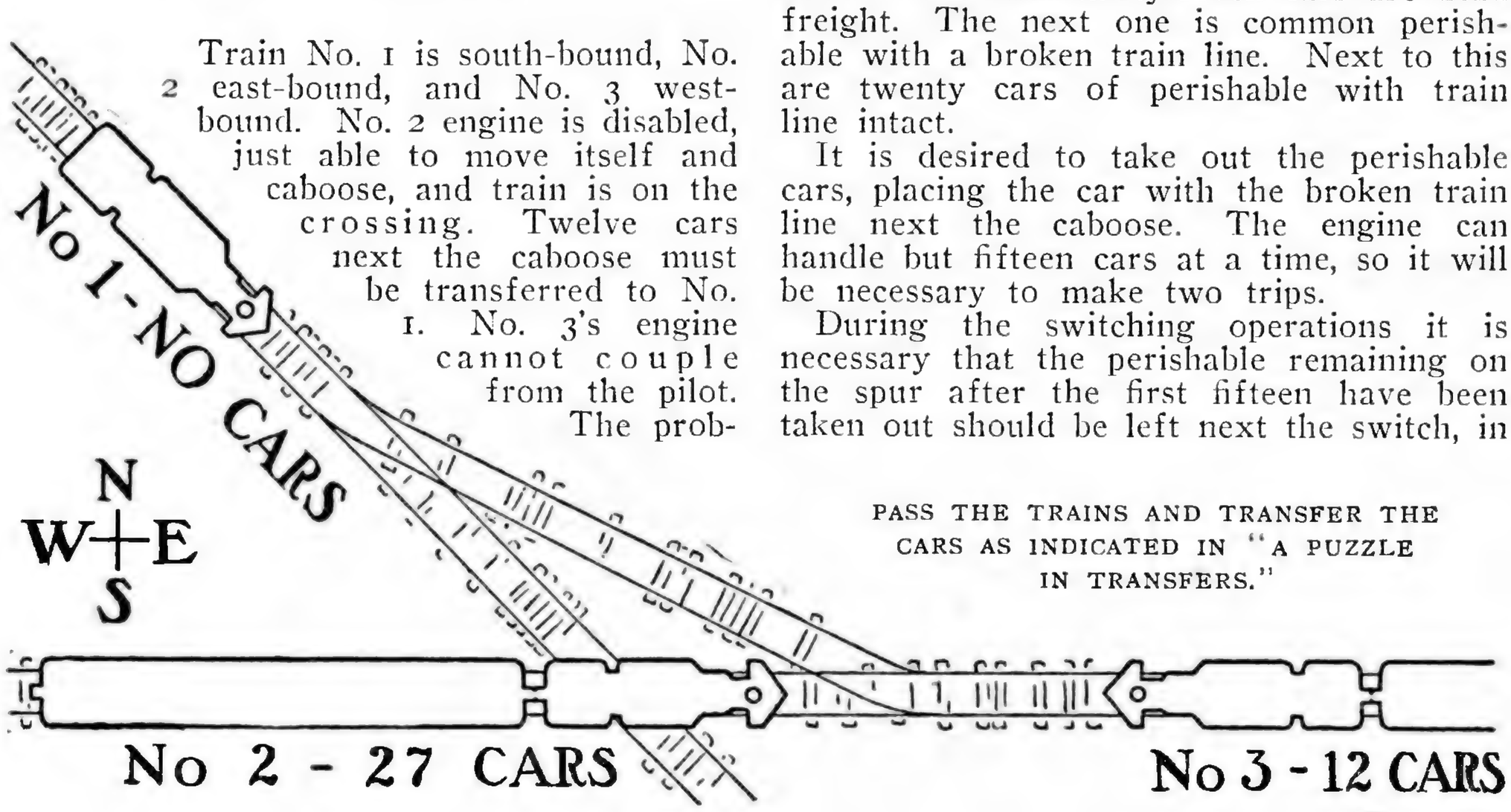
"'Please pass the Butter. Thomas J. Meechin, Brakeman, S. S. and T. Ry.'"—*Exchange.*

RAILROAD PUZZLES.

Some of the Problems on Which Railroaders Are Compelled To Exercise Their Wits.

A PUZZLE IN TRANSFERS.

FROM Texas Mr. J. E. Bradley sends us a puzzle which has some new complications not used hitherto in this department. Yet it is quite practicable, as Mr. Bradley's solution will show. Here it is:



PASS THE TRAINS AND TRANSFER THE CARS AS INDICATED IN "A PUZZLE IN TRANSFERS."

Train No. 1 is south-bound, No. 2 east-bound, and No. 3 west-bound. No. 2 engine is disabled, just able to move itself and caboose, and train is on the crossing. Twelve cars next the caboose must be transferred to No. 1. No. 3's engine cannot couple from the pilot. The problem is to pass No. 2 and No. 3, transfer the twelve cars to No. 1, and put the balance of No. 2's train on the transfer track, which will hold only fifteen cars, and let No. 1 over the crossing. No. 1 engine can handle only twelve cars at a time.

The attached diagram must be followed carefully in sending solutions in order to prevent confusion.

GETTING OUT THE PERISHABLES.

TWO months ago we offered another problem for our friends who are interested in the handling of trains and the switching problems connected therewith. The situation, as described by Mr. L. W. Marcellus, of Virginia, was as follows:

An engine and caboose are on the main line running north, and there are fifty-eight cars on the spur, which opens to the north. The first thirty-seven cars are dead freight. The next one is common perishable with a broken train line. Next to this are twenty cars of perishable with train line intact.

It is desired to take out the perishable cars, placing the car with the broken train line next the caboose. The engine can handle but fifteen cars at a time, so it will be necessary to make two trips.

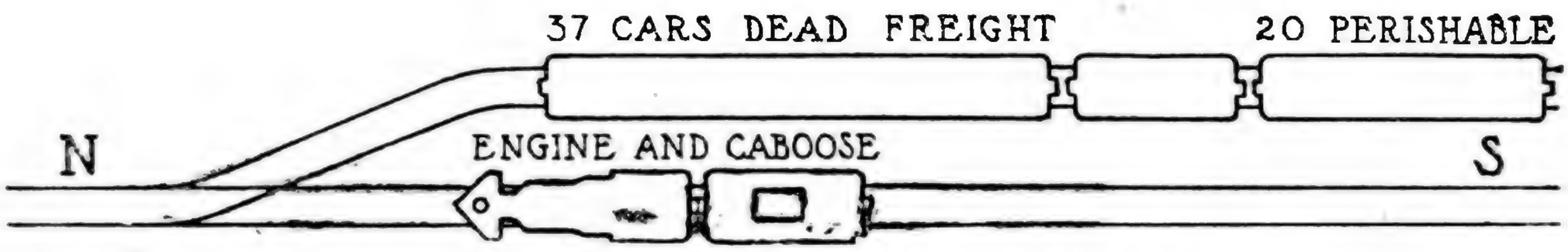
During the switching operations it is necessary that the perishable remaining on the spur after the first fifteen have been taken out should be left next the switch, in order to avoid switching more than is necessary on the second trip to get the rest of the perishables.

The author's own solution is a trifle hard to follow, unless you keep the diagram and position of cars very clearly in mind all the time. He says:

Cut off caboose on main line. Back on spur, pull off fifteen cars—dead freight—and back them down main line. Cut loose and back on spur, pull off fifteen cars, and back down main line. Cut off, back down spur, and pull off seven cars—the last of the dead freight—and back them down main line. Cut off, back on spur, and pull off one car—broken train line—and set it

on main line. Cut off, back on spur, pull seven cars—perishable—out on main line, couple to eight cars—broken train line car and seven dead freight—back on spur and leave seven.

Do this five times, leaving seven each time and holding to eight, thus making thirty-five cars replaced on spur. Then still holding to eight cars, back down on cars on main line, pick up two, and place them on the spur, thus returning all the dead freight to its original position. Back



GET OUT THE PERISHABLES, FIFTEEN CARS AT A TIME.

the eight cars which have been kept next to engine all the time down on main line and against caboose and cut them loose. Broken train line car is now next the caboose and seven of the perishables are ahead of it.

Back engine on spur, pull off fifteen—dead freight—and set them on main line. Do this twice, making thirty cars placed on main. Cut off, back on spur, pull off seven cars, and set them on main line. Cut off, back on spur, pull off seven, go out on main line, and pick up eight. Do this four times, making a total of thirty-two cars handled.

The seven cars taken off the spur are kept next the engine all the time. The five cars dead freight still on main line are now picked up and set on the spur. Cut off with the seven and back them down on main line next to perishables already there. You now have thirty-seven dead freight and six perishables on spur—with the latter farthest from the switch. Fourteen perishables and the broken train line car are on the main line with the latter next the caboose. It is desired to place perishables still on spur next the switch so that they will be first out without unnecessary switching.

Pick up fifteen cars on spur and set to main line. Do this twice, making thirty cars handled. Back on spur and pick up thirteen cars. Set six on main line and set seven others back on spur. Cut engine off, go back to main line, and pick up fifteen cars. Set nine of them on spur—dead freight—holding to six cars next the engine, as they are perishable. Do this three times, and then make a fourth trip, setting three cars on the spur. On the last trip cut off the six perishables also, leaving them next the switch as desired. The engine can now proceed with all the perishables it can handle and the caboose.

A solution that is perhaps a trifle easier to follow than is Mr. Marcellus's has been sent us by Mr. J. B. West, of New York. Mr. West would do it this way:

Cut the caboose off on main fifty-eight cars back from switch, back on siding and pull out fourteen cars and put on main. Go on siding again and get fourteen more cars, dead freight, and put on main; go on siding again and get the remaining nine cars, dead freight, and the broken train line car, pull out on main, and put the broken train line car on main, with the twenty-eight cars dead freight. Engine will hold onto the nine dead freight cars and go on siding and pull out all the perishable cars, five at a time, and put them on main next to the broken train line. The siding is now clear. Put the nine dead freight on siding.

Engine will now go on main and get eleven perishable cars and put on siding; engine on main again, and get the nine perishable cars, the broken train line and three dead freight-cars and put the three dead freight-cars on siding. Engine will hold onto the nine perishable and broken train line car and take the remaining twenty-five dead freight on main and put them on siding, five cars at a time, making five switches.

Now take the nine perishable and the broken train line the engine has hold of and put on main, next caboose. Engine will go on siding and get twelve dead freight and put on main; go on siding again and get eleven cars dead freight and put them on main; go on siding and get the remaining five cars, dead freight, and ten perishable cars and put the ten perishables on main and the five dead freight back on siding. Engine will now go on main and get the ten perishable cars and three dead freight and put the three dead freight on siding.

Engine will hold onto the ten perishable cars, and make five switches of the twenty-five dead freight on main and put them on siding, handling five of them each time, leave six of the perishable cars on siding ahead of dead freight, back down main with the four perishable cars, and couple in with the other ten perishables, broken train line car, and caboose, and proceed.

Some slight differences can be observed in a solution offered by Mr. Arthur H. Davis, of Iowa. Mr. Davis's solution has been somewhat condensed, as his original statements contained many repetitions which we have merely indicated.

Kick caboose south on main line to clear fifty-eight cars. Back engine in on spur and pick up fifteen cars dead freight, and set them on main line against caboose. Repeat

this until all dead freight and eight perishables are on main line. Seven cars dead freight of last fifteen handled will be ahead of the eight perishables.

Back in on spur with engine, pick up remaining thirteen cars perishable, pull out on main line, pick up two cars dead freight and replace them on spur. Repeat this process until first seven cars dead freight on main line have been placed on spur. Continue this process with the perishables and with the other dead freights until you have all the cars back on the spur, except the thirteen perishables next the engine.

On the spur thirty cars, dead freight, are next the switch, then eight cars perishable with the broken train line car thirty-seventh from the switch, then seven cars dead freight. Thirteen cars perishable on main line with engine are now backed down on caboose and cut off.

Back engine on spur and haul off thirty cars dead freight, fifteen at a time, and set them on main line. Then pick up first six cars perishable and set on main line. Go back and pick up two remaining perishables, thus bringing broken train line car next to engine, leaving seven cars dead freight on spur. Pull out with two cars perishable, back down main line, pick up six cars perishable and seven cars dead freight, and set freight on spur.

Continue process, setting seven cars freight on spur each time. On the last trip leave two cars perishable and seven cars dead freight and seven cars perishable on spur. Back engine down main line and pick up thirteen cars perishable and caboose. Drop caboose south of switch and back cars in on spur. Kick broken train line car down on caboose.

The twenty perishables are now on the spur next to the switch, and the broken train line car is next the caboose, as desired. The engineer can take out as many of the perishables as he wants, or can handle, and proceed, leaving the others next the switch, according to instructions.

A method which seems to consume almost as little time for carrying out as it does for describing, is outlined by Mr. Fred C. Thompson, of New Jersey. Mr. Thompson differs from the others in that he uses a pole and flying switches.

Leave caboose at south end of spur, back engine in on spur, pick up fifteen cars, and back them down the main. Cut engine off and back in on spur again, pick up fifteen cars more, and back them down the main. Go in spur and pick up the remaining seven cars of dead freight and back these down the main. Pick up the broken train line car and back it down the main.

Go in spur with engine and pull first fifteen cars of perishable to clear in spur and stake them by north of the switch. Repeat this with remaining five cars of perishable, back down main with engine, pick up broken train line car and fourteen cars of dead freight, and set dead freight in on spur.

Go down main again with the one car of perishable and pick up fourteen more cars of dead freight and back them in on the spur. Go back and pick up remaining nine cars of dead freight. Kick broken train line car down on caboose, fly first six cars of perishable north of switch into spur, and fly remaining fourteen down the main, back down on them, couple up, and go on.

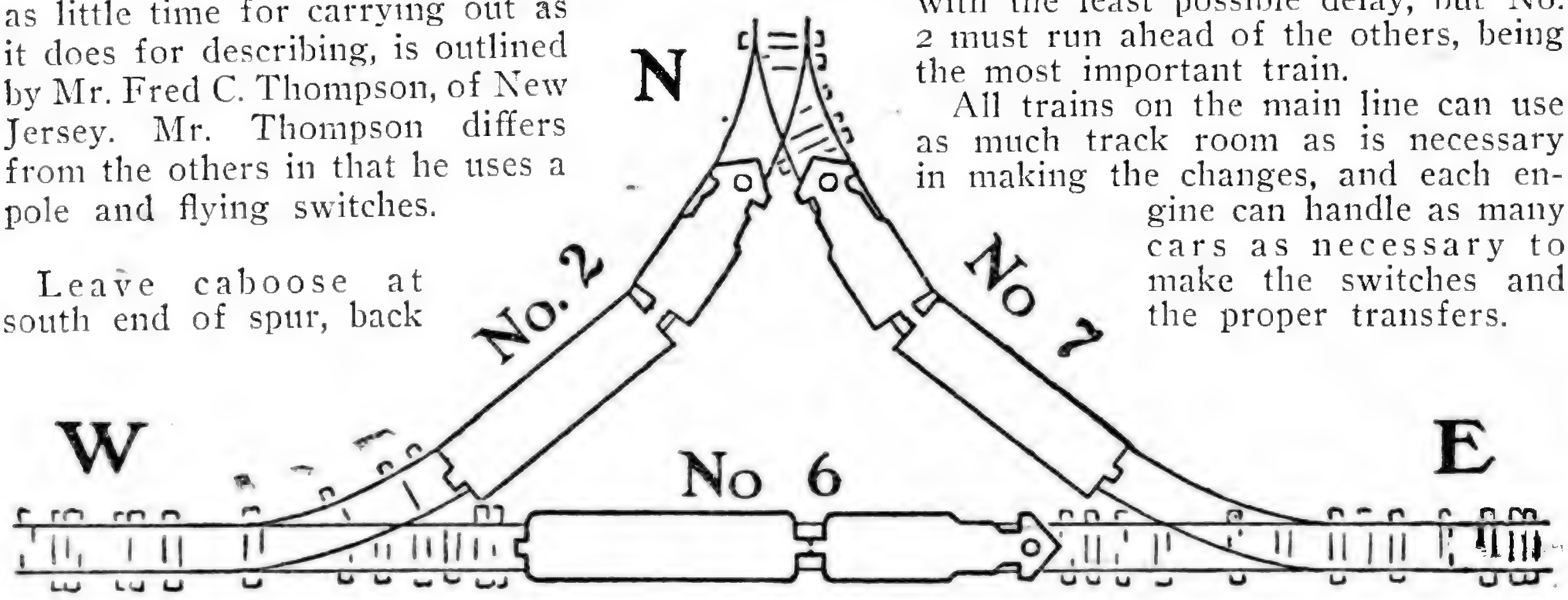
A THREE-TRAIN PROBLEM.

JUGGLING with two trains is likely enough to produce nervous prostration, but the addition of another train is a sure precursor of brain fever among conductors. Yet we have the temerity to submit the following puzzle by Mr. L. W. Marcellus, of Virginia:

At a certain point trains No. 2, No. 6, and No. 7 meet, No. 2 going north, No. 6 going east, and No. 7 going west. At this point the main lines are connected, causing a triangle, as shown in diagram. All three reach this point at the same time, and north and east bound trains have right over west on account of direction.

No. 7 takes spur of triangle. No. 2 has an observation car for No. 6, No. 6 has a sleeper for No. 2, and No. 7 has dining-car and observation car for No. 2. Each of the trains must get the cars and proceed with the least possible delay, but No. 2 must run ahead of the others, being the most important train.

All trains on the main line can use as much track room as is necessary in making the changes, and each engine can handle as many cars as necessary to make the switches and the proper transfers.



HERE IS A GAME OF RAILROAD CHECKERS TO BE PLAYED AS OUTLINED IN "A THREE-TRAIN PROBLEM."

SONS IN EXILE.

BY GEORGE BRYDGES RODNEY,
Author of "In Buff and Blue."

Revenge, Love, and the Lure of Gold Bind an ex-Soldier to the Land of His Servitude.

SYNOPSIS OF PREVIOUS CHAPTERS.

LIEUTENANT HOLT, on active service in the Philippines, is sent out with a detachment to find Lieutenant Ross, who has been missing some days. He finds his body and learns that he has been buried alive. The task of breaking the news to Ross's sister, Katherine, falls to Holt, who has known her from childhood. He then tells her of his love for her, and, partly yielding to her distress, she accepts him. Katherine then leaves for Japan with Mrs. Winton. While there they meet Mr. Hislop, who is coming out to establish American schools in the Philippines. They become well acquainted, and the commissioner promises to use his influence to secure Katherine a position when the schools are established.

CHAPTER IV.

The Ghost in the Chapel.

THE months that Katherine and Mrs. Winton had spent in Japan were by no means empty of results for Blake and Holt. The time for which they had enlisted was drawing to an end, and though, like Jacob, he had not completed his term of service, yet Holt felt that he could not wait much longer for his reward.

He knew that he did not deserve it, but he also knew that if in this world he merely got what he deserved his chances of happiness would be small.

A detail in Manila had been offered to him and as promptly declined; it was the strong, virile, raw humanity of the provinces that attracted him. He knew the cities as a man does who has worked over the greater part of North and South America; for peoples, like percentages, remain constant and well up to an average, while individuals vary.

It was the life in the provinces that Holt liked—the narrow life of a company officer with all its concomitants of responsibility, anxiety, and corresponding lack of appreciation. These drew and held him; and back of him was his major, an officer of long service, who watched and checked him daily until he had developed in him the qualities so necessary for the making of a first-rate officer.

He watched him closely and approvingly, and when the battalion was ordered to a small town for detached service and the major was allowed to select his own officers, Holt was the first man chosen. He was also the major's choice for housemate.

One sultry night in June, when the rainy season was fairly upon them, the few officers who were not on sick report were sitting on the porch of the major's quarters discussing the outlook when the orderly brought in the mail. Each man immediately seized upon the first paper that came to hand and promptly dropped out of the conversation.

A long silence ensued.

"There'll be sixty of 'em," said the major. He laid the *Army and Navy*

Copyright, 1908, by George Brydges Rodney.

Began in the June Railroad Man's Magazine. Single copies, 10 cents.

Journal on the table, lit a cigar, and put his feet over the arms of his long chair.

"What are you talking about?" asked Loring.

"I'm speaking of their royal highnesses, the members of the civil commission which leaves next month to govern this archipelago. Aren't you sorry, Loring, that you're in the army?"

"I? No. Why?"

"Don't you ever feel that you are wastin' your talents workin' like a nigger in a swamp for a hundred and twenty-five dollars a month? You should never let your patriotic fervor overcome your commercial instincts, my son."

"What do you mean?"

The major waved his hand as one does who desires not to be interrupted, and went on:

"Out of all the doctors I have known out here, and I have known a few of 'em —I only mention doctors because they seem to have been imbued with higher motives than the rest of us—at least ninety-nine per cent of the contract surgeons or the volunteers gave up practises ranging from five to ten thousand dollars a year and came out here on the pay of a lieutenant from sheer patriotism.

"I tell you it makes a man take a different view of his fellow mortals when he sees things like that. I know it to be true, because they have told me so themselves.

"There is one in particular who tells me so four or five times whenever I go to the Army and Navy Club; he is generally tearful over it about midnight. Holt, didn't you resign a five-thousand-dollar-a-year job in order to come out here?"

"Not I."

"Then three thousand? Somebody speak. What did bring you out here, anyway, Holt?"

"Well, sir, I had tried my hand at several things with indifferent success. I was working for a big corporation and I got tired of bein' a small toad in a large puddle.

"A few years ago I read a lot about coffee-raising in San Domingo, and three of us made up our minds that it would be a good investment for men with small capital. I think we had been reading some fool novel about life on tropical plantations and how the hero, attired in white clothes, sat on a *hacienda*.

"Sitting on a *hacienda* somehow had a Spanish sound to it; we didn't know much Spanish at that time. When we had made all our arrangements, we were informed by the minister from San Domingo that in order to hold land in the island it was necessary for at least one of us to be a citizen of the country, or else for one of us to marry a woman who was a native.

"You know the breed! We tried to get Holmes—he came from Boston—to marry one of 'em, but even he had some absurd prejudice against it. Then Holmes and I tried to convince Jackson, who was from Florida, that it was up to him, but that ended in a row that broke a gallon jug and nearly broke my back, so you see I never got a chance to sit on a *hacienda*. Look out!"

There was a roar in the street, a bullet whined through the long room, and, with a vicious "whit," landed in the plastered wall behind them. The major promptly blew out the light and jumped for his revolver.

Holt sprang to the door which opened into the hall leading to the guard-room; Loring, mindful of the open window, picked up a rifle and moved to the dark side of the embrasure.

The hurried rush of feet on the stone-flagged walk answered the quick "Turn out the guard!" of the sentry on number one post. Loring relit the lamp, and a moment later the corporal of the guard entered with a native prisoner of the usual *tauo* type, squat, heavily built, and of an impassive countenance.

"Found him climbin' the wall by the horse corral, sir."

The corporal handed a rifle to Loring, who examined it carefully and laid it upon the table.

"Who are you?" asked the major.

"No *intende, señor*. I do not understand."

"Send for the *presidente*."

The *presidente* was the unofficial interpreter for the major, and he was not unmindful of his increased prestige among the natives, the direct result of his visits to the old stone convent where the troops were quartered.

He arrived with many protestations of

loyalty and service. After taking a look at the man he said:

"*Señor,* I do not know this man. He does not live in this pueblo."

Then, turning to the prisoner, he asked him a question in a native dialect that was not understood by any of the Americans, and after receiving a reluctant answer, translated it for the benefit of the major.

"He say he live in Santa Maria."

Holt started, looked at the man attentively, and pulled a note-book from his pocket.

"Ask him if he knows these men: Tomas Feliciano, Pedro Aquina, Secundo Pedrarias?" he said, reading the names slowly from the paper. The question was put.

"He say, *señor,* that he know these men well. They are in the mountains. They have become insurgents—Tulisanes."

"Who is the chief of the party?"

"He say, *señor,* that Tomas Feliciano is the chief."

"*Bueno!* Where does he live?"

"He say he not know, *señor.* He no *sabe Español.*"

"Why do you want to know, Holt?"

"Because, sir, those are the names of three of the men who helped to kill Tommy Ross."

Holt's teeth clicked viciously as he looked at the man. "I think, sir, that I can get some information from this man."

He looked at the major with a curious grin.

"How? No water-cure!"

"Not a bit of it. I will not lay my hands nor anything else upon him; purely moral suasion, sir."

The major looked at him suspiciously, and then said: "All right. Go ahead then, but be sure that you don't forget General Order 100."

Holt turned to the *presidente.* "Tell him, *presidente,*" said he, "that we will have to detain him for a few hours. Of course, we will not put him in the guard-house—mind that you translate this word for word—for I can easily see that he is an *hidalgo,* a *caballero* of blood.

"Let me see where we can put him. We might place him in the old chapel, but it seems to me that there is a story that a priest was murdered in that room and that years ago his spirit was seen wandering about the building. Is it not so, *Señor el Presidente?*"

"*Si, señor.* It is true."

The *presidente* was following prettily the lead that Holt had given him.

"It will be all right, though. As this man does not understand Spanish, he will not know anything about the matter, unless he should be so unfortunate as to see the ghost. Of course, if that should happen to him, he would die.

"Tell him that it is the best we can do. I do not believe that the ghost, even if it appears, would harm a Filipino, and I can readily see that he is a brave man."

While the *presidente* was translating to the man, Holt was also furtively watching him; the man's face had paled a little and his Adam's apple was working up and down spasmodically. Holt suppressed a grin and muttered to himself: "And he doesn't understand Spanish, either."

The *presidente* talked to the man for some time and then turned to Holt.

"*Señor,*" he said, "I have not said a word to him about the spirit, but he ask me if it is true that the room is haunted by the ghost of a dead priest. I tell him yes. He say that he is a brave man, but that a brave man can do nothing against ghosts.

"I have told him that it has not appeared since the night a year ago when the man who swept out the dirt from the chapel was found choked to death, but he say, for the love of God, do not put him in the chapel; put him in the *carcel* with the other prisoners. He say that he is a *gente fino,* but that he wish to show you that all Filipino is equal."

"Tell him that I would never forgive myself if he should have to sleep in a room with common men. Keep him below, corporal, until I send for him. Come on, Loring."

The quarters were in an old stone convent that crowned the hill above the river. Once—it might have been centuries ago—it must have been beautiful, but appearances change rapidly in the tropics to the west of the international date line. Be that as it may, there the convent stands to this day, a crumbling

landmark of history. A long two-storied building, it is built of heavy stone, the walls of three-foot masonry, small windows with their iron *portales,* and the low-arched gateways that lazily yawn their invitation to the traveler to enjoy the rest and coolness of the stone-flagged courts.

A fountain, half full of water, lay before the arched entrance, and the few stunted bushes on the plaza, as well as the brown, parched grass before the doors, told their melancholy tale of work half done. The red-tiled, green-lichened roof showed the more recent changes in the patches of new moss over old-time stains, and the *budake,* the tiny gray lizard of the East, croaked and rattled in the cracks of the masonry at sunset.

Then, and not till then, say the Filipinos, these lizards come down upon the ground when the bells ring for vespers, that they may kiss the ground for which Christ died.

Behind the convent, built out from its rear face, a long building thrust itself toward the hillside. Its roof was split and cracked in many places, and through the open window-embrasures the moonlight and the wind had free access to the long room, throwing grotesque shadows of moving pappaia leaves upon the floor. Outside the building, the night was alive with noises, the rustle of the great banana-leaves mingling with the soft murmur from the grassy sea on the flats beyond, where the giant bamboo clumps waved their lance-like tips.

To this long building Holt and Loring took their way. Though not in the least superstitious, both of them felt queer sensations as they paced the long mahogany-floored corridors and watched the wonderful play of the moonbeams upon the trees and on the jungle that crept close to the rear walls of the convent.

"What are you going to do, Holt?"

"I'll show you. Get hold of this."

They seized a great confessional-box built on the plan of the episcopal chair that was used to carry the bishop in state whenever he visited the town. It had two great handles fastened to the sides by which four men were wont, in old times, to carry the chair and its occupant from the convent to the cathedral at the far end of the town.

Pulling this box to the end of the room, Holt placed it in the square of moonlight, where it lay in silver splendor on the floor.

"Now I want a tin plate, a sheet or a shelter-tent, and some whisky."

"I can get you some whisky," said Loring, at once interested.

He hailed a soldier through the open window, telling him what was wanted. A few minutes later Holt said:

"Now, Loring, I want you to impersonate the ghost of the priest who is said to have been murdered here. I would do it myself, but for the fact that I want to be with the *presidente* when he asks the questions that I want him to put to the native.

"Just take some of this lampblack and intensify the shadows on the lower part of your face. You ought not to have any vanity."

"Now what?" asked Loring, when he had painted himself to suit the whim of his friend.

"Get in the confessional-box and drape yourself in the piece of the shelter-tent that you have. Steady! It must cover every vestige of your uniform.

"Now sit on the floor so that you can't be seen from the outside. Put this rope about your neck; it'll look more natural." He grinned pleasantly.

"Now put that saucer of salt saturated in alcohol in front of you. When I bring in Mr. Native, you must be on the *qui vive,* and when you hear me drop a curb-chain put a lighted match in the alcohol, and, when it's blazing, look straight at the native and jabber something; it don't matter what you say.

"He'll be too scared to note a word. Speak in Spanish, and then no one can understand you.

"It might help matters a little if you'd drop a little sulfur in the blaze and disappear in the smell of it. See?"

"*Visto!* But he won't talk! The thing's too thin."

"That's all right. You have no idea how superstitious a man can become when the right people get hold of him."

When all his arrangements were perfected, Holt, seeing that Loring had taken his place in the box, sent for the

presidente and took him by a dark, narrow stairway to a tiny window behind a grating in the wall about fifteen feet above the floor in the end of the room opposite that where the box was placed.

"Now, *presidente,*" he said, "when I tell you to do so, I want you to ask these questions." He spoke rapidly in Spanish for a moment.

"Ask them in Tagalog, and be very sure that you do not speak in your natural voice. Do you understand?"

"*Si, señor.* Will the ghost really appear? Is this possible?"

The voice of the *presidente* shook a little and he glanced about him uneasily.

"Oh, yes. It'll appear all right."

"*Señor, señor!* How is this done? You are heretics, are you not, you Americanos?"

"Yes. And thou knowest, *presidente,* that all heretics are in league with the devil."

"*Si, señor,*" the old man whispered, crossing himself devoutly. "It is true."

A moment later the tramp of shod feet in the dark corridor outside told them that the corporal was there with the prisoner. The door was opened and the Filipino, protesting and imploring in Tagalog, was thrust into the room, the door slammed noisily, and all was quiet.

From his vantage-point at the grating Holt could scarcely see the prisoner as he crouched against the wall. For nearly an hour he lay in a heap near the door; then, apparently reassured by the quiet and by the harmless nature of his surroundings, he grunted once or twice and disposed himself for slumber.

A sharp, long-sustained rattle as of a chain dragging over stones broke the silence, then a hollow groan was twice repeated. The man sprang to his feet, sank again to the floor, and crossed himself rapidly.

The sounds were repeated.

Then a giant bat swung in out of the moonlight and circled about the room. The flapflap of his wings aroused new terrors in the man, who had retired to the farthest corner of the long room.

Finally, as he was about to lie down again, there came a renewed rattle of chains, and a strong smell of burning sulfur blew in through the open window. Then Holt dropped the curb-chain.

The clang of it rang out in the silence, and in response there came from the confessional-box, at the far end of the room, a fitful blue gleam that played over the dark surface of the narras wood and the polished mahogany of the floor. In the midst of the flame rose the head and shoulders of a priest, his head tied in linen bands, his face showing that his burial had been by no means recent.

The native gave a low cry and sank to the floor. A voice called out in Tagalog: "Hast thou forgotten the Spanish that thou wast taught?"

A silence ensued. Then—"No, *señor!* No—"

"Where is Tomas Feliciano, the murderer?"

"In the caves of El Pulpito, *señor,*" was the trembling answer.

"How may he be known?"

"*Señor,* he has the marks of the *varuela* upon his face and the fourth finger of the right hand is missing."

"And the others? Who are they?"

"*Señor,* I know them not."

"How many of the loyal Filipinos lie at Santa Maria?"

"*Señor,* a thousand men."

"Where do they go?"

"They await an order to retreat to the north to join the forces in Ilocos Norte."

"*Bueno!* Stay thou here with thine eyes to the wall. If they should gaze upon me, that moment would they be blasted in thy head."

The figure vanished in a cloud of sulfurous smoke, and the Filipino knelt upon the floor with his face to the wall. An hour later they took him out of the room; he was dripping with perspiration and was unconscious, but on his recovery he spoke fluently in Spanish.

"Well, I'm blamed if I see what we've got out of this," said Loring disgustedly, as he washed the lampblack from his face.

"I don't suppose you do, my boy," said Holt; "but, all the same, if you and I ever meet a man with his right little finger missing and his face badly pitted by smallpox, then that man is Tomas Feliciano.

"You want to mark him well, for he is the man who killed Tommy Ross by burying him alive. He owes a debt to Fate."

"What do you mean? What kind of a debt?"

"A life," said Holt grimly. "Good night."

CHAPTER V.

The White Man's Burden.

THOUGH every incoming steamer from Hong-Kong brought him letters from Katherine, Holt was by no means satisfied. He had told no one of his engagement; self-contained as always, the only sign that he gave of an unusual interest was when the pack-mules brought in the mail-sacks, when he would stay in the office of the sergeant-major until the last picture post-card had been sorted out and the mail was ready for delivery.

On those nights, which were rare enough, he was seldom to be found in his quarters. After he had read his letters he would blow out his light and sit and dream over a cigar until bedtime came. And his dreams were very real.

Two things were open to him. The end of this war would almost certainly bring an increase in the size of the regular army, and Holt was sure enough of his record to know that he could have a commission almost for the asking. Against that was the fact that it meant genteel poverty for Katherine.

Going over in his mind the names of the officers of the regular army whom he knew, he could not think of one, except those who had independent means, who did not have to economize until their lives were made miserable by the haunting dread of debt that was hanging over them, made necessary by the frequent expensive moves and the cost of the equipment, as well as the unparalleled expenses of living.

On the other hand, these islands were yet to be opened to the march of civilization. There were railroads to be built, waterways to be opened, and mines to be developed, and as he sat and thought every railroad and waterway seemed to begin and end at a little ylang-ylang-scented porch above a golden beach, with the blue water just below it, and in the very center of the scene stood Katherine.

He was holding forth one evening to the major on the future prospects of the islands.

"It is an unmistakably rich and valuable acquisition to any country, this archipelago," he said. "Millions have been spent upon it, as well as hundreds of lives. Of course it will never pay by actually returning gold into the national treasury; history shows that colonies rarely or never pay in that way.

"The Philippines will be to America what the West was to the East, only, of course, on an infinitely smaller scale, where every man can see his own El Dorado, not to be gained, as the old Conquistadores thought, by right of sword, but by hard and constant work.

"The same quality is needed that has made the Anglo-Saxon the wisest, the strongest, the most daring of that class of men which we require for the work—I mean it, too, in the highest sense of the word—adventurers."

"Pretty good," said the major. "I've often paid a quarter to hear a worse speech than that. The only fault that I can find with it is that your geography is all wrong. It won't be to America what the West was to the East at all; it'll be what the South was to the North in 1868 or thereabouts.

"There'll be plenty of adventurers, and they won't be adventurers in the highest sense of the word, either. You'll see civil government established before any one is ready for it. You'll see black men sit in judgment on white men under conditions in which even a white man would be swayed by prejudice.

"And now, by way of preparing yourself for these kaleidoscopic changes that are coming, just you go and turn out your company, with five days' rations, and go over to Santa Lucia and make the people over there elect a *presidente*. They're runnin' wild around that part of the province, and the last *presidente* was an insurgent.

"By consequence, he cut all the telegraph lines that pass the town. You go over there and make them elect a man that you can handle and put the fear o' God into 'em, Holt. Good night, my boy."

At that time ladroneism was rampant in most of the provinces, and the bulk of the native population, terrorized by the

depredations of the brigands, stayed quietly in their towns, paying without protest the tribute that was regularly levied by the ladrones, for which payment they were punished if detected, for things were still under the firm hand of the military authorities.

The people had learned, however, that the occupation of a town by the Americans was followed by a systematic guarding of property rights. *Cedulas,* or identification cards, were issued to all the occupants of the villages. These they were required to produce whenever they passed the line of sentries.

As rapidly as was possible, the towns were placed under a form of civil government—that is, a *presidente* was elected by the people, and he, together with the other officers of the municipality, discharged the duties of their offices under the supervision of the commanding officer.

Careful supervision was necessary, for bribery and superstition were rife. Official honesty was a thing not understood by the natives, to whom power had but one meaning—the personal aggrandizement of the person in authority.

Santa Lucia was one of these towns. It was built like the typical Filipino village, in numerous precincts or *barrios,* that lay several miles apart, with the communal rice-fields adjacent. Holt found it to be a long march.

His road lay straight across the mountains, up gorges that were well-nigh impassable, across great plains covered shoulder high with the tall cogon grass that is used in thatching the roofs of the native houses, and so across the headwaters of the river San Juan and another river, unnamed upon the Spanish maps, to Santa Lucia, where it lay on the west side of the mountains, its outer *barrio* resting against the foot of the range.

When his camp had been made that afternoon, Holt sent for the head man—the *cabeza*—of the village, together with the priest, the school-teacher, and all those who held any town office or performed any duty for the municipality. There were nine of these *principales* who gathered in his house, and he was compelled to conduct his business with the assistance of the priest, who was the only man who could speak Spanish.

"I wish," said Holt, speaking very slowly, that there might be no possibility of a mistake, "the people of this village to elect a *presidente locale* of their own choosing. Tell all the men of the pueblo, who are over sixteen years of age, to meet me to-morrow morning in the plaza two hours after sun-up. Those who are entitled to vote will elect whom they desire."

"We will have the people gather here at the house of *el commandante,*" said the priest.

"No, you won't, either," said Holt hastily. "The town has a population of six thousand people. You can't get them in this house. Have them meet me on the plaza."

"There will be plenty of room here, *señor,*" said the priest.

At seven o'clock the next morning, Holt was considerably astonished when, one by one, there strolled up to his house the same nine men whom he had interviewed on the previous evening.

"Where are the voters?" he asked.

"We are the voters, *señor,*" was the answer.

He was thunderstruck. Never before had he seen such a perfect exemplification of the truth of the old adage, "We are the people."

"No, no," he said. "I mean the entire number of the legal voters."

"Ah, *señor,* we are the voters, the *principales* of the pueblo. We are the men who own most of the land and all of the *carabao* with which the *taos* till their rice-fields.

"We pay the water-taxes to the church. How, then, can any one save ourselves have an interest in the town?

"The rest of the people are ignorant; God alone knows how ignorant they are, *señor.* We will elect a *presidente* of the town, as thou sayest, and our choice will be the choice of the people."

"So be it," quoth Holt, thinking that it would be easier to handle nine men than nine hundred.

"Choose thou one of us, *señor,*" urged the priest.

So Holt selected one of them, the town barber, and his nominee received a unanimous vote; but, rising, he protested, saying that for years he had been the town barber, and had all the work that he

could do, and that he had no time to devote to the duties of the proposed office. He declined the honor.

The school-teacher then received a unanimous vote, but he also declined it, saying that he was drawing a salary of seven *pesos* a month, and that it did not stand with his honor for him to hold all the public offices.

So it went throughout the entire group. There were nine men present, there were nine men elected, and nine who for one reason or another declined to serve. At last, annoyed by it all, Holt pointed a long forefinger at the priest.

"Thou art *presidente, Señor el Padre.* Thou hast been elected, and thou shalt serve. Report to me each day."

The priest was obviously annoyed, and tried to avoid serving, but Holt insisted, and as the little group dispersed he laid a detaining hand upon the shoulder of the new *presidente* and delayed him until the others had left the house. Then he sought enlightenment.

"Ah, *señor,*" said the priest, "it is so very simple that the Americanos should have seen it for themselves. See! A man is elected *presidente* under the Americanos, and begins to serve.

"They search out many ladrones, who have always many friends in the town. The *presidente* gives information, and the soldiers prevent the people of the town sending their friends in the hills the rice, tobacco, and *vino* to which they are accustomed.

"Then, some day, there comes an order for the soldiers to return to Manila, and as soon as they have gone come the ladrones from the hills and say: 'Who gave such and such a piece of information to the Americanos? Who cut off our supplies of rice or fish or *cigarillos* or *vino?* The *presidente locale!* Catch him.'

"And they carry him off into the hills, and, if they merely kill him, he is fortunate. It is very simple, *señor.*" Great drops of perspiration stood on his face.

"So it is. Confoundedly simple! However, you can tell them, if they touch you, that they will be excommunicated accordin' to Hoyle. That'll fix 'em."

As the days passed, however, Holt found that the election of a *presidente* by no means solved the questions that arose from time to time. Telegraph-lines were cut, bridges were burned, and firing on his pickets was a matter of nightly occurrence.

These things were not done by organized troops, but by the people of the *barrios,* who were protected by his own orders daily in their work, and who at night sallied forth and did what damage their hands could find to do. Though by no means always dangerous, yet it was enough to keep every nerve stretched to almost breaking tension, simply because no one could tell when a real attack would be made in force on the single company that composed the garrison.

The town was large, and the *barrios* were widely separated, the outer part being perilously near the bamboo thickets, so that eight sentry posts were required. These had to be backed up by patrols, which visited the various posts after dark, so that every night Holt had to place one-third of his available force on guard.

In addition to this, which was hard enough, the rest of the command would be turned out under arms several times in a night by the sputter of rifle-fire that would increase in volume toward some threatened point.

By day he would receive frequent messages—when the telegraph-line was in working order, which was seldom enough—such as: "Raiding parties reported in your section. Why no preventive action?" or "Why are your requisitions for mosquito-nettings not in?"

"Mosquito-nets be hanged!" broke in Worth, when Holt read him the message. "I'm clothed with prickly-heat as with a garment, and I've got tropical ulcers on both feet so badly that I've made the last six patrols to the river in grass slippers simply because I can't get a shoe on my foot, and you're worse, and here they are devilin' us about mosquito-nets.

"As soon as I have recovered my strength I intend to go down and beat up the chief of police. I bought a dozen eggs from him yesterday, and when I went to eat 'em I found that he had hard-boiled every one of 'em to keep 'em from spoilin'."

Day after day there was the same unvarying round of duties. Day after day

the sun from a brazen sky smote the men at the little guard-mounting on the hot, sandy plaza; the patrols drearily moved from the quarters to the river, to the cemetery, to the road, and so back again to the quarters.

Day after day the long lines of dirty natives strolling to their work in the rice-fields, and the town leper eternally sitting in the cool entrance of the church, dozing over a cigarette, his hideous affliction, for the disease was heavy upon him, drawing alms from the passer-by. And every day there was the same termination, the red-hot sun sinking in the notch in the hills, and the bamboos silhouetted in outline as hard as iron against the brazen disk.

It was then that they got their only relief. Between sunset and dark there was rarely an interruption, but when the Angelus had rung, and the great iguanas had begun to croak and rattle at each other across the cool darkness, there would come a sputter of rifle-fire from the north, a sudden flurry and a volley from the east, men shouting and dogs barking.

Then the hinged shutters of the tiny native houses fell with a soft crash as of grass-matting hitting grass-matting, and the lights went out to an accompaniment of *"Los insurgentes! Los insurgentes!"* from the people, followed by the ringing notes of "To Arms!" when the firing came too close for comfort.

"*Señor.*"

Holt looked up from his writing at the native who stood before him.

"Well, what is it?"

"*Señor,* I kiss thy hands and feet. I am Juan Tinio, from the pueblo of Barabang. I am a grass-cutter, *señor.* We send our grass to Manila and to other places where the Americanos keep their horses. Last night, in my *barrio,* we heard a sudden noise, and before we knew the cause the Tulisanes were upon us.

"It is six *cigarillos* distant" (in many places in the islands distances are measured by the number of cigarettes that a man can smoke while walking from one place to the other); "the father of my wife lay in my house, his leg broken by a falling tree, and when the Tulisanes tried to make him give money, which God knows he had not, my brother ran to the Americanos to give warning.

"They caught him, *señor,* and they killed him on the beach, cutting his throat and leaving him buried in the sand, and I have come to give warning and to ask that *señor el medico* do us the honor to come to our *barrio* to give advice about the broken leg."

Holt looked at him out of tired eyes.

"*Seguramente,*" he said slowly. "But we have no *medico.* I will, however, send the *sargento* of the hospital, who cures my men when they are sick."

He called to his orderly: "Burke, tell the hospital steward I want to see him."

A few minutes later, when the hospital steward had reported, Holt said to him:

"Get what you think you may need and go with me to Barabang. A native over there has had a tree fall on him, and they tell me that his leg is broken.

"I reckon you'd better take your instruments along, as it may be necessary to amputate. We will start immediately."

Taking six men with him as an escort, Holt crossed the divide that lay to the east of the town, and paddled wearily down the trail that paralleled the stream on the opposite side of the mountains.

"What in the world are we doing this for?" was the question that constantly recurred to him with ever-increasing force. Of all men whom he had known at home, why should he alone have elected to come out to the "Back of Beyond?" Why was it that even now he could not make up his mind whether or not he wanted to go home or to stay in the Orient?

Was it simply because of the feeling that having once put his hand to the plow he must not turn back until he had plowed the entire furrow? Was the work worth it? Could one generation hope to wipe out the accumulated evils of three hundred years?

"It is not money," he said to himself. "Though, God knows, I'd do a lot for a pile of money. I reckon it is that a man wants to feel that when it is all over, and he is about to 'cash in,' he can stand up with clean hands and say that he did his level best.

"There's one thing that's certain in this world, and that is that it pays a man to run straight. If you do wrong in this

world, you'll certainly catch it hot, and if you do right, you probably will; but, just in order to preserve his own self-respect, a man's got to do the best he can.

"Allah! If I could only get my hands on one Tomas Feliciano, when no one else was near. It only requires that to be the liqueur to my banquet. If I could see him go out, and then marry Katherine, I'd be utterly content."

And an unpleasant light, that was not infrequent of late, came into Holt's eyes.

They reached Barabang late in the afternoon. The sun was well down in the west, and the great stone church, with its fire-blackened tower, stood out in strong relief against the tender green of the young rice.

The flocks of the white *carabao* birds flitted about the buffaloes, low-lying in their wallows, and away off to the south by the river, where the wet rice-lands lay, was a long line of men and women waving cloths, beating together pieces of bamboo, and shaking coconut-shell rattles to drive a passing flight of locusts from the young rice.

A priest-led procession passed down the main street of the pueblo, celebrating some occasion of passing great importance—a birth or death or marriage. These are the only things that matter in the East.

The priest met them in the plaza, and the customary addresses of loyalty were made. When he had listened to the ordinary polite speeches, of the utter meaninglessness of which he was well aware, Holt said:

"And now, *presidente,* if you will show me the house where the man lies sick with the broken leg, my man shall look at him and say what is the matter, and presently, if God wills it, he shall be cured."

The *presidente* led the way through several of the dirty, narrow streets to a house that stood near the outskirts of the pueblo. They climbed to the living-room by the bamboo-ladder and squatted upon the floor of split bamboo, and immediately all the relatives—and among the Filipinos, where the wife's grandmother's niece's third cousin is esteemed a near relative, they are plenty enough—began to gather and to chew *buyo* as they offered interminable advice.

The injured man lay on the floor in a corner, unconscious. Near his head stood a tiny stool, with a bowl of water on it, and his injured leg, swathed in roll on roll of bandages, was extended stiffly on the floor. His teeth were set in extreme pain.

"Look at him, steward, and see what ails him," said Holt, as he seated himself upon the window-sill and lighted a cigar.

The steward busied himself for a space with the figure in the far corner. Presently Holt heard him say:

"My Heavens, sir; look here!"

Holt looked at him. "What's the matter?"

"Will the lieutenant please look at this?"

He moved across the room and looked; then, sickened, he turned away. From what he had been told he had supposed that the man had broken his leg on the previous day, but a look at the limb showed him that the injury was five or six days old.

He asked a question in the vernacular. Two women, speaking at the same time, attempted to answer him.

"Here! *Ikau!* You!" He pointed to the elder of the two women. "When was this done? Answer, thou?"

She pondered for a moment, and ten women in the room attempted to refresh her memory.

"*Señor,* it was five days past."

"Why did you not send word to me before this?"

"Because, *señor el commandante,* our priest said that he could mend it; so he came with holy water, and we fetched at night the leaves from the tree near the Santa Bocol (Holy Spring), with fish also taken from its waters. With these we made a paste and wrapped the leg in it, and twice a day the priest has sprinkled the bandage with holy water, so that the leg might grow strong and well."

Holt took one look at the sickening mass of fish and flesh and leaves that swathed the leg and turned to the steward.

"What do you think of it?" he asked. "It's your business."

"It's got to come off, sir. Look at it! Gangrene has already set in. If it's been wrapped up that way for four or five days, I don't see why it is no worse than it is."

"Can you take it off?"

"Oh, yes, I can take it off all right, but I have no anesthetic."

"Humph! Sixty years ago nobody had any, but they managed to take off a good many legs. Is it necessary to take the leg off in order to save the man's life?"

"It certainly is, sir."

"Wait a bit."

He carefully explained to the natives the steps that were necessary, and told them that a recovery without an amputation was impossible. There was instant demurring, for a Filipino has all of a Chinaman's horror of the surgeon's knife. Finally Holt said to the family of the injured man:

"Well, you must go to the *presidente* and make a written request of me to have the leg cut off. I have seen enough of this sort of thing. If we take off the leg without the written request, and the man dies, the family will immediately have us charged with murder, and there'll be the deuce to pay."

After some delay the written request was delivered to him, and the steward got out his instruments, and with Holt sitting on the patient's body to keep him still, and two soldiers holding his feet, the steward got to work.

The man bore it stoically. What he suffered, no man can tell save those who have endured the like. After nearly an hour had elapsed the operation, such as it was, was completed, and Holt, sick and faint, started his detachment down the road on the way to Santa Lucia.

"There's only one redeemin' feature to the whole thing," he muttered. "Blake'll be in to-night with the pack-train, and I'll get a letter from Katherine from Japan."

And he was content.

CHAPTER VI.

Mustered Out.

MRS. WINTON and Katherine found it a far more difficult matter to say farewell to their new surroundings than they had supposed would be the case. Day after day went by, and steamer after steamer passed out of the wonderful harbor of Yokohama, and still the evenings found them driving up the Yatozaka Hill, and out beyond the city to the shores of Mississippi Bay.

It was not until June had nearly gone that they finally decided to return to Manila. It was the Futami Maru that took them out on the last run that that ill-fated steamer made ere she burned at sea off Thursday Island.

It was a seven-day trip, and though Hong-Kong extended open arms to them, as Hong-Kong always does, yet they were glad at heart when the two blue rockets from the bridge and the flare amidships on the steamer was answered by a burst of light from Corregidor, as the quartermaster made their number, and they dropped their anchor in the shallow waters of Manila Bay.

Their arrival was heralded in the *Cable-News,* and very glad indeed was Hislop when, seated in his office, he read the item that seemed to give him an additional reason for having come to Manila. In his new quarters in the palace, from which the military authorities had been summarily ejected in order to make room for the new commission, Hislop found his work far more interesting than he had anticipated.

The questions that confronted the new government were both numerous and complex. Having been held for nearly three hundred years under a rule that was a judicious combination of military rule and practical autocracy, the Filipino construed as license that which was in reality a modified form of liberty.

For two years they had been under military law, and they were just beginning to appreciate the fact that disobedience met with summary punishment. Years of experience with municipal officials of their own people had imbued them with a deep and well-founded distrust of their honesty.

Comparative honesty, under fear of punishment, they could understand; but that a man should, of his own free will, be honest and tell the truth was simply not to be believed.

They were asked now to believe in this new system that no one understood. They had known that under the Spaniard the taxes were high, and that salaries were not particularly so, and when department

after department was added to the new government, each necessitating a head with an increased salary, it meant but one thing to them.

If the army, having conquered them, had taken all that the land held, it would have been a simple matter, but what made the puzzle even more complex was that a new element had now entered into the land to possess it. This was what they could not understand. It showed that the army was weak.

The question of finances was, by no means, an easy one to settle. Under the Spanish rule the pay of the captain-general had been ten thousand *pesos* a year. Obviously no Americans, except the officers of the army and navy, could live on such ridiculously meager salaries as were paid.

They were promptly increased, and new offices were created. The results were immediately apparent. Rents rose in Manila until houses which formerly leased for forty or fifty *pesos* a month could not be had for three hundred, and an officer was allowed twelve dollars a month for rent, when no public quarters were available. Prices rose till the mere cost of living equaled the income.

The new department of education desired results, so that the public could see for itself across ten thousand miles of water what was being done, and to that end school-teachers were imported from the United States and stationed in various towns, where they taught the native teachers, who in turn imparted the information thus gained to the native scholars.

During all this time life in the provinces was strenuous, to say the least. Organized rebellion had disappeared, but in its place was a peripatetic insurrection that would, in a night, break out in a tiny *barrio,* spread like a conflagration over a province, and burn itself out in a month unless it were checked by a display of force.

Then, like embers banked in sand, the individual members retained their zeal until the troops were recalled from the pursuit and their place was taken by the constabulary. It was a year that was full of action for the troops, scattered as they were in small garrisons over the archipelago.

The casual reader of the Manila papers could read each week the news of an entirely different outbreak. A band of insurgents would start an insurrection in some part of the islands, the seriousness of which depended upon what the civil officer had eaten for breakfast, and on the length of time he had served in the tropics.

First of all came the woman in Cavite Province, who announced herself as the Virgin Mary, reincarnated, and won a following by no means to be despised. She was laughed at in the clubs, and for a while she was treated as a joke, but the burned houses and the ravaged lands were no joke, and eventually she had to be taken seriously.

It was not until the capture of Aguinaldo that the bottom really dropped out of the organized insurrection. When that took place they were hopelessly defeated, and had to rely on the political promises, which in itself showed to what straits they were driven.

Holt was discouraged. He had done his work to the best of his ability, and he saw that even in case he succeeded in obtaining his commission in the regular army an apparently endless tour of foreign service was before him. He had saved a few hundred dollars, thinking that in a new land the process of internal development would give him a good investment for his little capital.

Now that peace was accomplished, he discovered that he was in a position similar to that occupied by the boy who holds the bag while the rest of the party beats up the country for game. They got the game, and he did not even have a run for his money.

Men from the United States, mentioned in the papers as prominent, received appointments to lucrative offices; new offices were created, and newer men were appointed to fill them.

"It looks to me," said Blake, when he and Holt were discussing the prospect, "as though crass ignorance is a merit. Theoretically, an ignorant mind should be a mind in a receptive condition; practically, you find far more absurd bias and prejudice among the ignorant than among the well-informed.

"I'll bet you what you like, Holt, that six out of ten of these people who have nursed themselves into jobs out here

didn't know a year ago whether Cavite was the name of a tooth-powder or a breakfast-food. Take that old chump of a school-teacher, Fulke; you know him.

"He came out here to educate the people; at least, he said so. He blew in here the other night and asked for a bed, and, of course, I put him up for the night. During the evening that native doctor, Tecon, came in, and sat down for a powwow with me, as he frequently does.

"When he had gone home old Fulke, who had been sitting there, looking like an owl in an ivy-bush, said: 'That's the kind of a man, Mr. Blake, that an education would improve.'

"Tecon was educated at the Jesuit College in Manila, and after graduating from the University of Valladolid he took a two years' course in medicine at Vienna. Fulke must have had as much as a grammar-school course in Illinois!

"What are you goin' to do, Dick, when we are mustered out next month? Are you goin' home?"

"Home? As I stand? No, sir! This country owes me a living, and I mean to make it pay its debts. Do you remember the country up back of Santa Lucia? I mean in the mountains?"

Blake nodded. He remembered it well.

"There's coal up there, or I'm a duffer. It may not be first-class coal, but I'm fool enough to try it for what it is. The formation is all in favor of it, and even poor coal is so much better than the best we get from Japan that it would mean a fortune if we could lay our hands on a good outcrop."

Blake nodded again, and gazed stolidly out of the window. "Ever been in Ictaban?" he asked.

"No."

Blake went to his trunk, which stood in the far corner of the room. "Now, mind you, Dick, this is between you and me alone. *Placetne?*"

"*Placet.* What is it, Tommy?"

"Ictaban is a little native village consisting of about ten houses scattered over a broad valley. You wouldn't recognize the place as a town if you only paid a casual visit to the place, nor would you ever think that there was anything there of unusual interest to us. What do you say to this?"

He handed to his companion a long quill, that had apparently been cut from some enormous feather. It was filled with a dark substance, which Holt did not immediately recognize.

"What is it?"

"Empty it out and see."

He carefully poured the reddish dust into the palm of his hand, where it showed a subdued metallic luster. He noted its unexpected weight, rubbed a small quantity of it between his thumb and forefinger, and finally placed a pinch of it upon his tongue.

"Know what it is?" asked Blake.

"Sure thing! Cinnabar. Sulfid of hydrargyrum, if you want the chemical name. If there's any quantity of it, your fortune's made."

"And yours, too," said Blake. "Now listen, my son, and I will tell you all I know about it. I asked you a few minutes ago if you knew where Ictaban was. Very few people do know, for the simple reason that it is so small a place that it is not on the maps.

"You may know that the Aetas, the Indians who live in the little hills away at the 'Back of Beyond,' do not live in villages at all. They simply pull over the boughs of the nearest trees and cover them with cogon grass, and rarely spend more than one night in the same place in their improvised shelters.

"Well, these people have a civilized taste for *vino,* albeit they are listed as an uncivilized tribe, and in order to indulge in their hankering for the 'flesh-pots of Egypt,' they send venison and wild-pig meat down into the town and trade them off for *vino.*"

"What's that got to do with the matter in hand?"

"Wait a bit. Some time ago one of these Aetas came into town with a bow and some arrows for me. He also had a shield that was stained with a red dye that did not look like any vegetable dye that I had ever seen out here.

"I asked him where he got it, and he told me that an old man in the hills traded it to him, and that he believed that he got it 'out of the bowels of the earth.' I thought I recognized it as a form of mercury, but I was not quite sure, so I told him to bring the old man in to see me and I would give him a fine coat.

"About ten days later he came to my house with the old fellow, and a more curious-looking old man I have never seen; he was about ninety years old and, as you know, that in itself is a rarity out here among these people.

"The old rascal told me, through an interpreter, that he dug the dye out of the ground, and that his father had taught him how to roast the earth in order to get the coloring matter. I went out with him and spent a week in the hills, ostensibly to hunt wild pig.

"I didn't get any pig, but I did get a hatful of ore that was enough to make a man's mouth water. I was afraid to have it assayed in Manila.

"They have a story that about two hundred years ago, the Portuguese came in here, several hundred of 'em, and endeavored to mine the stuff in large quantities. They settled at Ictaban, so the story goes and, away back in the seventeen hundreds somewhere—they have no idea of time—there was a row, and all the Portuguese who were not killed were driven out by the Spanish and by the tribesmen.

"Nobody knows what for; apparently it was for the violation of some tribal custom. You know these Aetas are as queer a lot as you can meet in a long year's journey. The place is about five days' travel from here, only you must go by way of Manila, because we couldn't get our stuff across the hills.

"We are due to be mustered out next month. Will you stay out here with me and see what we can do with this proposition?"

"Will I? Will a duck swim? You bet I will. How did you ever come to make the offer to me, Tommy?"

"Oh, I don't know! You're honest, ain't you? And I haven't forgotten that on a certain occasion, when I had been given up for dead in the hospital, after the most recently imported doctor from the States had been given a whack at me, a certain man rode forty miles on end through a tropical storm just to see how I was goin' to make it.

"The same man used up his leave of a week in Manila in takin' me out on the Luneta when I was dead broke, and carriages cost three dollars an hour. Remember?"

"Oh, stow that. I had plenty of money!"

"*Salaam-ut po!* So did a good many others, but I don't remember seein' anybody break a leg tryin' to get into the hospital to see me."

"There was never a more opportune thing in this world than this suggestion of yours," said Holt. "You do not know, of course, but I am engaged to Miss Ross."

Holt smoked stolidly, and finally as he stopped speaking he laughed in an embarrassed manner.

"Katherine Ross? Tommy Ross's sister?"

"Yes."

"It's unnecessary for me to congratulate you, old fellow. You know how lucky you are. She's by long odds the loveliest, and as surely the nicest, girl in Manila."

"Can't you say more than that?" Holt grinned.

"Certainly not. Don't you know that every woman in Manila is a belle? You'll resign then, will you?"

"No, I won't resign, and you sha'n't, either. What's the use of resigning when we'll be mustered out next month? What do you think we'll need?"

"We'll certainly want guns, and you'd better trade your rifle for a cavalry carbine. They're far handier for use in the jungle or heavy brush; and, by the way, Holt, see if you can't get your hands on about five thousand rounds of ammunition.

"Don't buy it all at once, because if you do, and they find out that we are stayin' behind, they might ask questions, and it would be a nice thing, if after serving for two years we should be arrested by a native policeman for having arms without a license."

"Why not get a license then?"

"Simply because if we apply for one there'll be twenty officials to ask why we want it, and where we are going, and I ain't going to prospect a mine for some outsider. I've had all I want of that these last two years."

"How about the mining laws, Blake?"

"How about 'em?" Blake grinned cheerfully. "Nobody knows just what the laws will be, but you can bank on one thing, and that is that they will make the

rich man richer and the poor man poorer. Whatever they are, they will not be made public until every one who has any pull and wants any land, or who has any inside information as to the location of any valuable franchises has staked out his claim.

"We'll just keep still about this and do our work as quietly as we can. If we attempt to take out a title, we'll get it all right, and then, when we have developed it as far as our capital will allow us, we'll find out that our title is no good.

"You know just as well as I do that if we located on a barren stretch of seabeach with only bare sands on all sides of us, there'd be a hundred Filipinos put up a claim, and after we were ousted we'd find that Mr. Native was only a stalkin' horse."

The next month passed slowly to both Holt and Blake. The latter was intensely interested in his plans, and was optimistic in the extreme. When the orders came for the regiment to go to Manila they were not a little sorry.

Not for nothing do men work together through good and evil report for two long years. Not for nothing was the memory of the many marches through the heavy mud and the heavier rainy seasons of Luzon. They said their farewells with much genuine regret, though to save his life Holt could not help grinning when his major took him to task for staying behind.

"Do you like the country, Holt?"

"About as much as a Filipino likes a drink of water when he ain't thirsty."

The major laughed. "You'd better forget all those things that you've heard of, my son, and do not resurrect your memories until two years have passed and you can no longer be held to an account. Good-by, boy."

"Good-by, major. When you see me again, I'll be workin' my own auto while you'll be pushin' along on a condemned government horse."

The tiny launches puffed and grunted as they swung the long lines of the *lorchas* and *cascoes* alongside the transport and the men cheered to the echo as the last shore boat cast off, with a flutter of handkerchiefs and shouts of approval from those who were staying behind.

The great steamer got her anchor and headed west for the Boca Chico to the north side of Corregidor, and Blake and Holt stood and watched until the black smoke had shredded away into the light mists of the outer bay.

Blake yawned. "Tiresome thing this sayin' 'Good-by' to people. I reckon I'll pull out for the hotel. I suppose you're goin' to the Calle Real Ermita?

"Meet me at the Oriente at midnight"; and he hailed a passing *caromatta* and whirled off toward the Escolta, while Holt went first to the club and then to Mrs. Winton's, intent on seeing Katherine.

(To be continued.)

CHARACTERISTIC CLUBHOUSE.

An Addition to a Railroad Y. M. C. A. That Is in Keeping with the Name of the Association.

AT West Springfield, Massachusetts, four discarded railway coaches have been formed into a novel and economical clubhouse for the railroad Y. M. C. A. The four cars are backed up one on each side of a small rectangular building which forms the office of the man in charge, and through which they communicate.

One car has been fitted up as a dining and lunch-room, another as a reading-room, and the other two as sleepers. It is twenty-six years since the railroad Y. M. C. A. was first organized at West Springfield, and for a number of years the work was carried on in two rooms.

As the association has now a membership of over two hundred, even the new facilities were not enough, and the new clubhouse will relieve much pressure on the accommodations.

"Pulling" a Race on the Iron Trail.

BY JOHN L. RICE.

THE TRUE STORY SERIES. Railroading has its tricks, no less than horse-racing. In many ways the two pursuits are not so greatly dissimilar. In both cases time is important; records are cherished carefully; previous performances of both riders and ridden are long remembered; and tricks that win—or lose—are not unknown.

In the pages which follow the story is told of one of these tricks. Although the event happened a good many years ago, the narrative is new to most of our readers. There has been some slight change of names, but the facts are as described.

TRUE STORY, NUMBER TWENTY-TWO.

Trick of an Old-Time Engineer When the Compounds Were Being Introduced on the Lehigh Valley Railroad in Pennsylvania.

IN the year 1881, when the Goodwin Locomotive Works began to introduce their compound type of engines on the roads tapping the anthracite coal regions, Dan Price held the throttle on No. 595, a scrap-heap owned by the Lehigh Valley Railroad. It was a machine of the "simple" type, which Dan had personally nursed into one of the prettiest and speediest engines on the road.

Dan was fooling three dollars and eighty-two cents a day out of the company by impressing Superintendent Fitchell with the belief that he was performing a marvelous feat of economy in running the old machine with a load of forty coal-cars over the Wilkesbarre mountain and back in ten hours. It would have been a feat for any other engineer on the road; but to Dan it was a cinch.

It meant holding a day run from 6 A.M. to 6 P.M., and he was tired of the long night-shifts, often prolonged until the next night. He got the job with the understanding that twelve trips would be a week's work.

No one but Dan, his fireman, and a few cronies in the roundhouse knew that he pulled in often on his last round with only a few inches of water in his tank.

EDITOR'S NOTE: All the stories published in this True Story Series have been carefully verified by application to officers or employees of the roads or companies concerned who are in a position to be acquainted with the facts. Contributors should give us the names of responsible persons to whom we may apply for such verification, in order that fruitless inquiries may be avoided. This condition does not imply any lack of confidence in the veracity of our contributors, but is imposed merely to give greater weight and authenticity to the stories.

Series began in the October, 1906, Railroad Man's Magazine. Single Copies, 10 cents.

But his conscience troubled him very little on his toil-free Sundays.

I said it would have been a feat for any engineer except Dan. I forgot Filbert. Filbert might have done it. The two men were the oldest and shrewdest engineers on the road—friends on the rare occasions they met off the job, bitter rivals when their hands were on the throttle.

I have said enough to define the situation when the Goodwins butted in with their new-fangled "compound." The compound didn't look so good to the company. They were pulling all the freight they could handle pretty satisfactorily with the simples, and the compounds carried an impost in additional cost of one thousand dollars apiece.

Dan didn't think much of the compounds, either. He had practically owned No. 595 ever since he had dropped the shovel for the lever, and she suited him and was acquainted with his moods. He was pretty hot, though, when Filbert was placed on the new machine in a test to prove its ability. He himself was selected as champion to guide the old-fashioned against the new. The suggestion that he wasn't considered the best driver of anything that ever turned a wheel huffed him, and he determined that Filbert would go down in defeat, even if the manufacturers had handed him an air-ship. He did, too, and although it's a long way from the front, that's the beginning of my story.

The defeat was on the level. Filbert was on a new-fangled machine, born stiff and lazy in the mammoth engine-incubator. Dan inspired No. 595 with some of his own notions of what was expected of her, and she pulled into the Fairview yards at the end of the run with a margin of an hour, over the toughest section of the road, and that meant it was mighty tough.

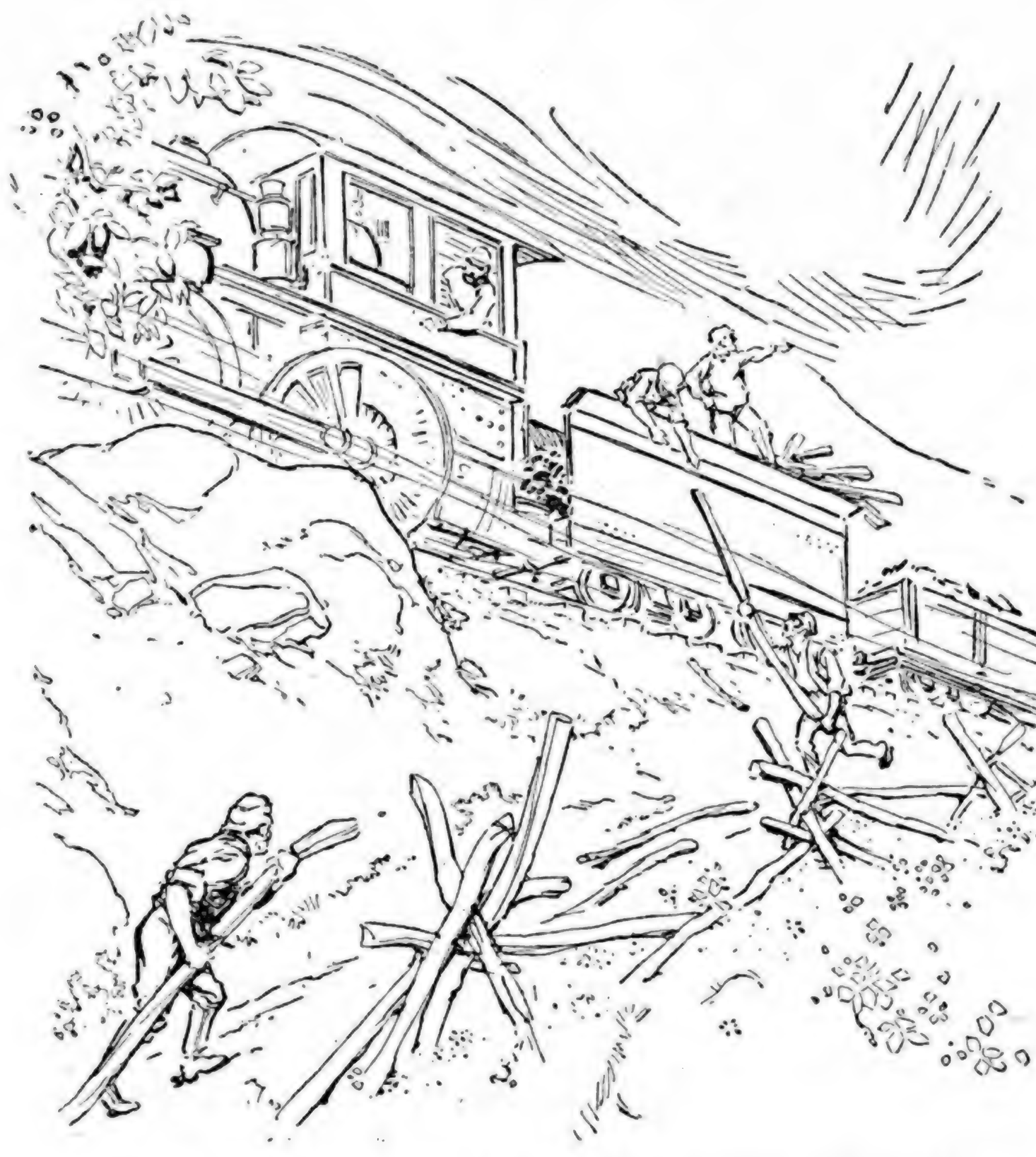
The load had been figured to the pound, water and coal measured with a tape, and it was a square beat. In fact, Dan had a ton of fuel left when Filbert dragged in with his back wagon empty.

The Goodwins were furious. An order of ten of the compounds hinged on the contest. They bellowed and howled and frothed, and then wagered the year's output of the factory that the affair was a fluke, and that in another contest the compound would make two trips in the time of the simple's one. They couldn't make good on such a bluff as that, of course, but it resulted in another test.

John Tally, Goodwin's representative on the ground, engaged Dan this time to handle the compound. Dan was promised an easy job for life escorting the new machines to their destinations if he made good.

This cut no ice with him if he could only beat Filbert, and he told Tally that he could lay all the bets he wanted to on the compound coming in ahead. Dan loved his old engine, but his reputation as an engineer was at stake, and he confided to a few friends that the com-

IT WAS A SIMPLE MATTER FOR FOUR OF THE CREW TO JUMP DOWN AND HOIST THE PINE FENCE-RAIL ALONG THE RIGHT OF WAY TO OTHERS ON THE COAL-CARS.



THEY TORE DOWN OVER A MILE OF GOOD RAIL, WHICH LAY STOCKED ON DAN'S TRAIN AND FOUND ITS WAY TO HIS FIREBOX.

pound would win or go soaring heavenward.

The test was under the same equal conditions of weight, coal, and water. It was begun at nine o'clock in the morning, with whistle-blowing and flag-flinging from the Coxton yard-office. Dan had a time start of half an hour, and was approaching his middle ground, the crest of Oliver's, the worst stretch of grade on the trip.

He had been overanxious, bullying and swearing at his fireman, Jack Herran, until that worthy had got away with more than half the coal. The compound wasn't taking the grade so gracefully, either. At the rate the coal was going, Dan might come in a poor first, but his tender would be empty, and the honors would go to Filbert.

Dan was half-way to the summit and was sweating blood when a peep over the tree-tops and down the valley revealed Filbert with his train swinging along under good headway toward the hill, easily a half-hour to the good in the handicap. It was at this moment that Mickey Dillon, Dan's flagman, had an idea.

The train wasn't running faster than a horse-car with a lazy team, and it was a simple matter for four of the crew to jump down and hoist the pine fence-rail along the right of way to others on the coal-cars. They tore down over a mile of good rail, which lay stocked on Dan's train and found its way to his firebox.

What was left when Dan returned by way of the cut-off to Wilkesbarre was dumped into the river at a convenient spot, and Dan came in with a roaring fire and five tons of good coal in his bunkers. He had been shy of water, too, but when he was convinced that his handicap was good he had stopped until the crew had gathered water by the bucketful from the same river.

Filbert came in an hour to the bad, empty-handed, not a nugget of the black stuff, and about three inches of water. Dan gave him the ha ha, and the Goodwins were delighted, and didn't hesitate to let Dan know it.

It was a reversal of form that would have caused a riot on a race-track. It puzzled many railroaders, some of whom to this day believe it was due to Dan's superior skill and luck. Only Dan and his crew knew the real explanation—and Dan's wife.

For on the pay-day that followed Dan was short forty dollars in his roll. He had receipts, however, from the squire of Sugarloaf township for a mile of good fence.

EBENEZER'S DESTINY.

BY EDGAR WELTON COOLEY.

Why He Thought It Beckoned Him to a Railroad Career, and Why He Concluded that It Didn't.

"BEFORE I had the sudden shock of meeting Ebenezer Peabody," observed the yardmaster, while we were sitting in the shade of the shanty, "I was conceited enough to believe that I was well posted on human character. It had been my hobby. I had studied up on character.

"I had subscribed to all the magazines devoted to character. I had read all the books on character to be found in the public library.

"But when I saw Ebenezer, I drew in my breath with a loud noise. I had never before seen such a character, or heard of such a character, or read of such a character. Ebenezer was something entirely new to me; he was an overwhelming surprise.

"Not that he was especially homely, for he wasn't. He was just an average sort of a man in looks; not one of the kind that would scare you to death if you met him on a lonely road at night, but he had a way about him that kept you on the anxious seat for sure. You never could tell just where his intellectual activity was going to break out next.

"If ever a man used patience and perseverance to discover for what purpose Nature intended him, that man was Ebenezer. His early life was a series of interesting but fruitless experiments in the fields of usefulness and endeavor, but history fails to record that he ever discovered that vocation in which he could be a brilliant and phenomenal success.

"On his twenty-second birthday Ebenezer was piloting logs against the busy end of a saw in a little mill in the Wisconsin woods. He remained there long enough to lose two fingers off his left hand and one off his right, and then he discovered that Nature and foreordination had predestined him for a railroader, and a railroader he would be.

"So, one day he burst into the astonished presence of the superintendent of the Smithville and Jonesburg Railroad. He wanted to know if the superintendent was in need of any help. The superintendent was! He always was!

"For at that time the Smithville and Jonesburg Railroad was so hard up that a receiver wouldn't have anything to do with it, and pay-days were too far apart to converse with each other over the long-distance telephone.

"When the superintendent induced anybody to work, he kept him as long as he could. That is to say, the man would hold his job until he grew cross-eyed looking for the pay-car.

"Then he'd quit, and the superintendent would hunt for somebody to take his place. Hunting for help was one of the superintendent's most important duties.

"Wherefore the superintendent arose and shook the three fingers and the one thumb on Ebenezer's right hand and told him he was the very man he was looking for. He said he could see by the general characteristics appertaining to the said Ebenezer that the Ebenezer aforesaid was 'cut out' for a railroader.

"Ebenezer was surprised and elated to hear such remarks from so distinguished an individual as the superintendent of the Smithville and Jonesburg Railroad. He smiled a luminous and expansive smile and agreed to work for the road.

"So the superintendent appointed Ebenezer assistant foreman on section twen-

ty-four. Creating assistant foremen was like play to the superintendent. He could do it continually all day and not feel the least bit fatigued at night.

"There were twenty-five sections on the road, and as each section needed a section crew of at least two men, the superintendent was able to appoint twenty-five section foremen and twenty-five assistant foremen, and as he never had more than one application a day it took him at least fifty days, if he worked Sundays, to complete the list. By that time the most of his first appointees would have resigned and he could begin all over again.

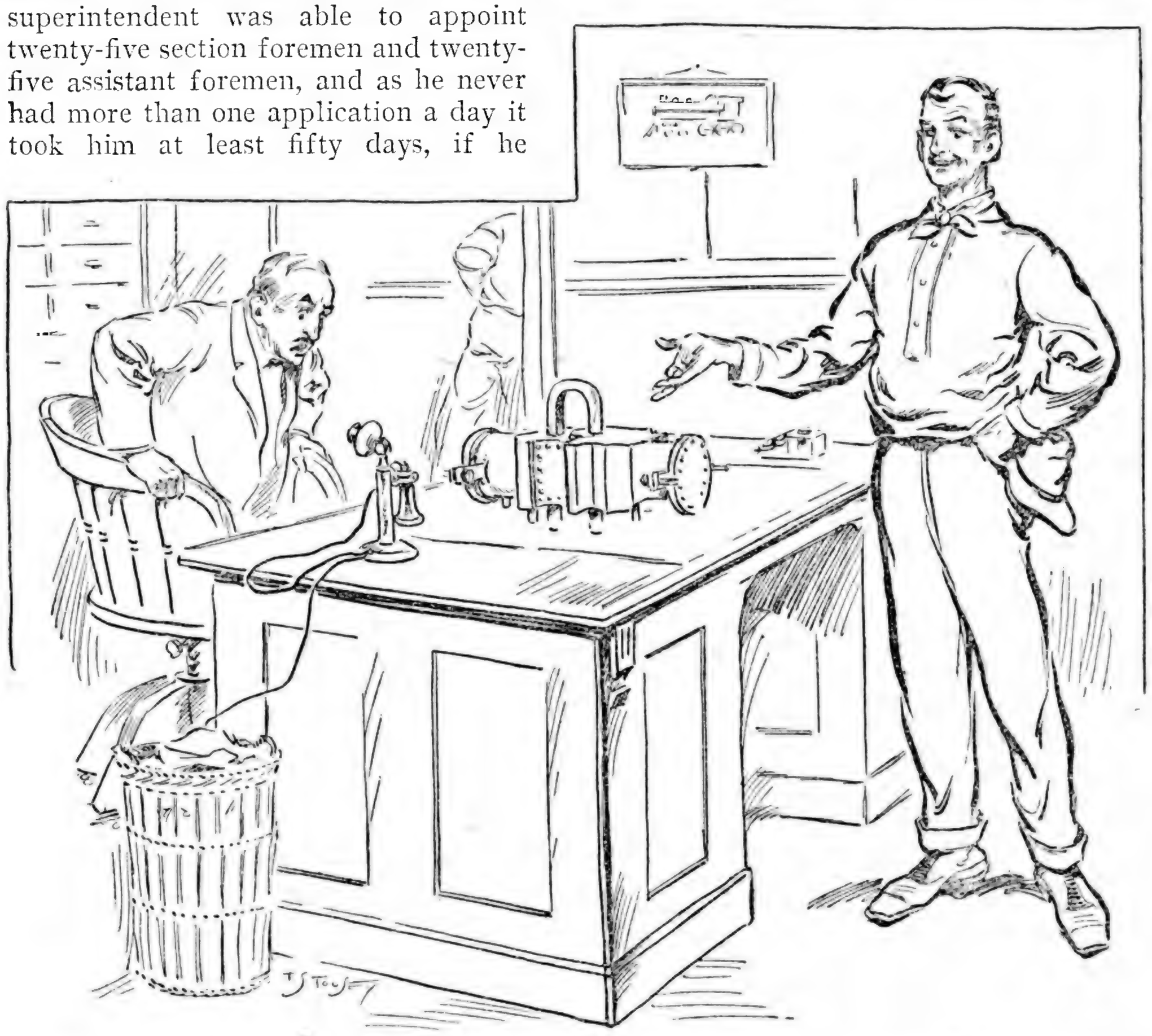
"So Ebenezer went to work on an accumulative salary. That is to say, every month Ebenezer was credited with twenty-eight dollars on the company's books, and the company would pay a certain per cent of this as often as circumstances would allow—and circumstances were not very much gifted that way.

"The remainder of the salary went on accumulating, and if Ebenezer lived long enough to see the road placed on a paying basis he would have a snug sum coming to him. This was a very alluring prospect, especially as Ebenezer was young.

"But as the Smithville and Jonesburg didn't run anywhere but up and down hill and around curves, the most of the employees either gave up trying to live long enough to draw their accumulation or went to another road.

"There was plenty of work to do on section twenty-four, but Ebenezer wasn't expected to do very much of it. It was hard enough to fill the places of those who resigned voluntarily, so the superintendent wasn't disposed to discharge anybody.

"So long as Ebenezer kept the rails spiked down to every second tie and saw that the weeds didn't grow high enough



"EBENEZER EXPLAINED, IN A FEW WELL-CHOSEN WORDS, THAT THE CONTRIVANCE WAS NOT AN INFERNAL MACHINE, BUT A MODEST AND INOFFENSIVE CAR-COUPLER.'

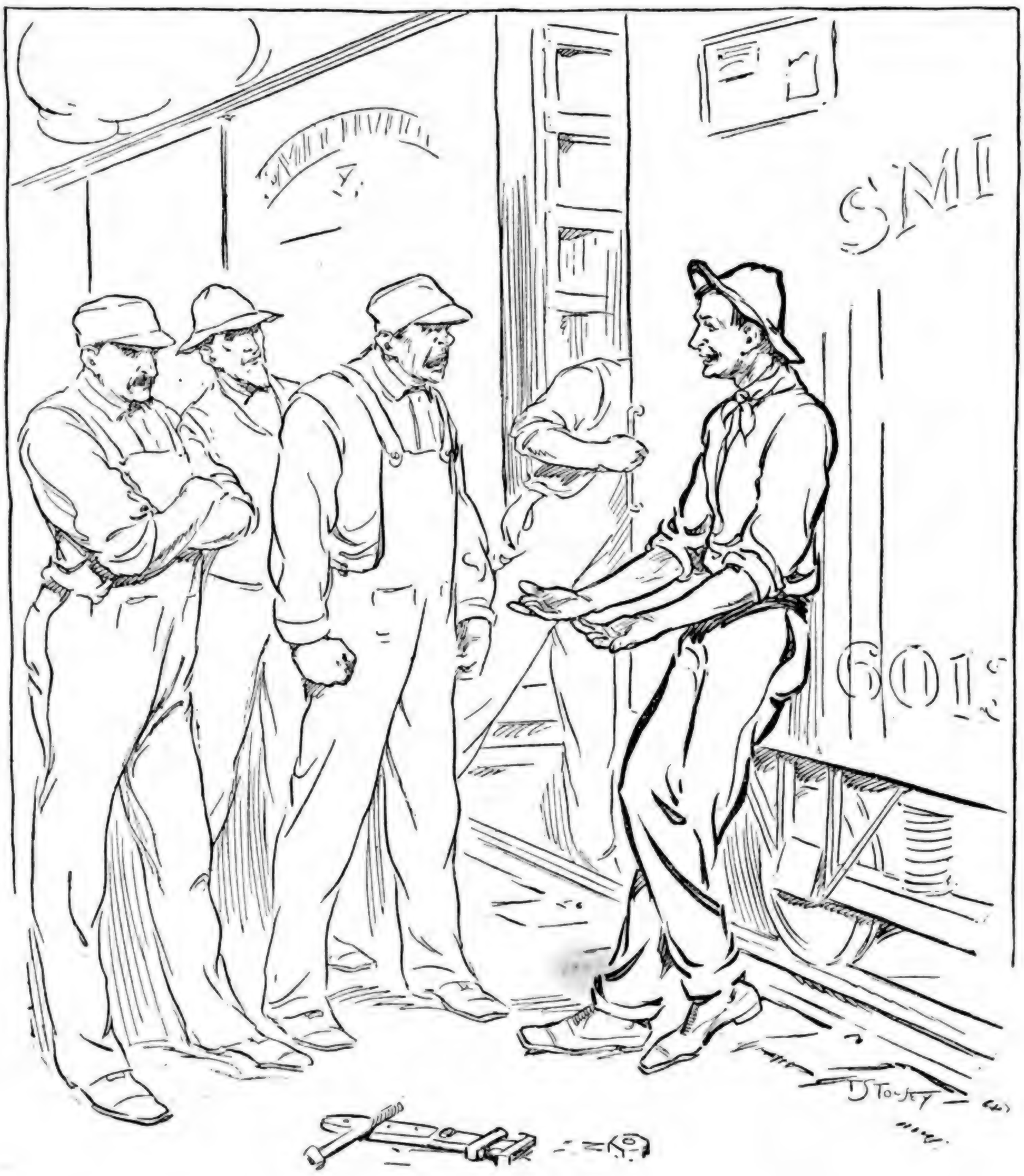
to hide the switch-lights, he wasn't disposed to make any fuss about it. As for the foreman, all he had to do was to swear at Ebenezer and threaten to sue the company for back pay.

"Ebenezer was very happy until he discovered that he had made a mistake in accepting service on the section. He had no doubt that he was a born railroader, but it made him very sad to think that he had blundered into the wrong department. He was quite positive that he was intended for a brakeman or something like that.

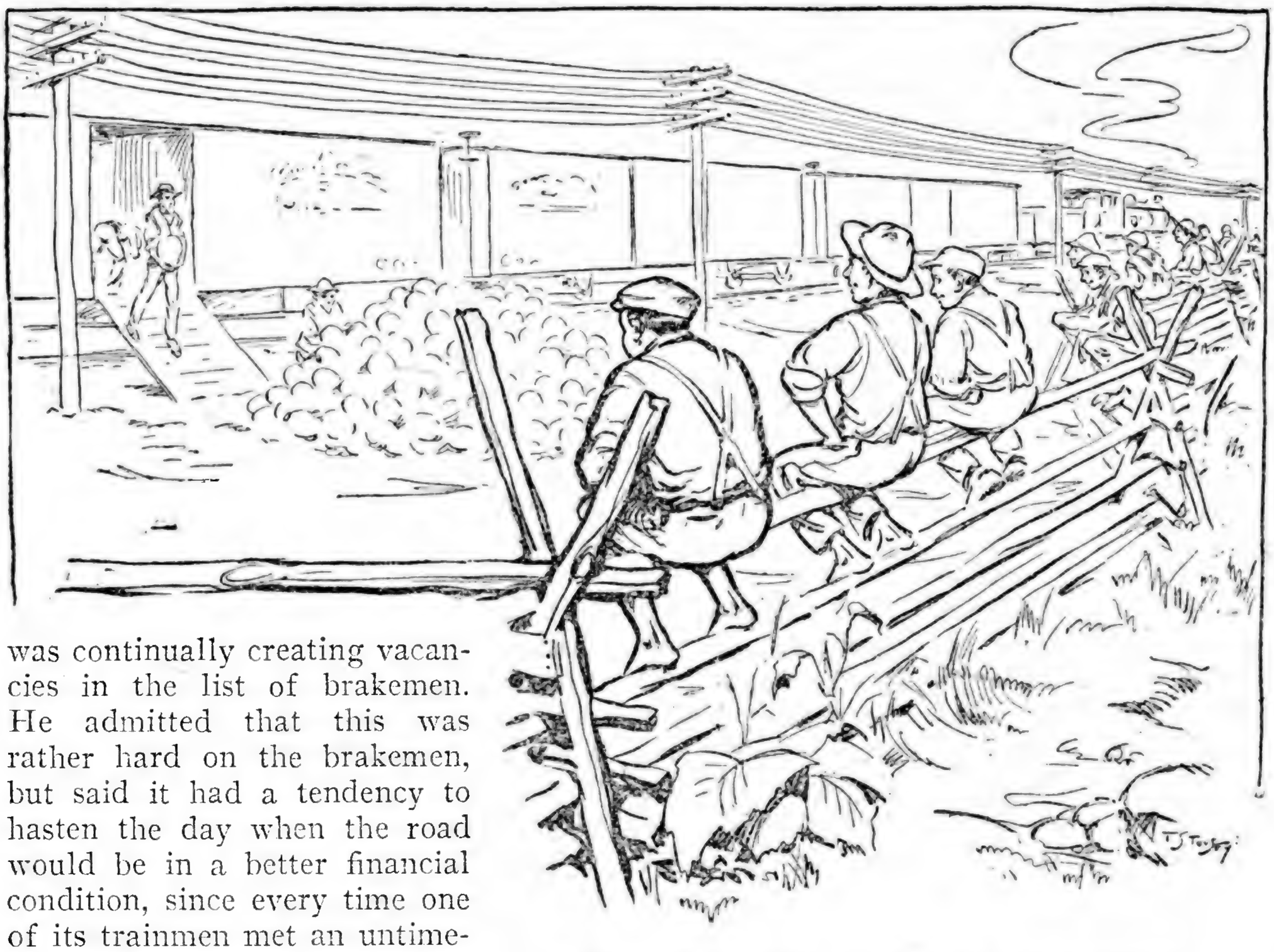
"So he had another heart-to-heart talk with the superintendent. The superintendent was deeply grieved that Ebenezer was determined to resign. He expressed his deep regret that the title of assistant foreman sat so unsatisfactorily upon Ebenezer's shoulders.

"He said, however, that if Ebenezer would not deprive the S. and J. of his services, he would make him a brakeman. There wasn't any road, he said, that was in greater need of brakemen than the Smithville and Jonesburg, not because they ran so many trains, but because the trains they did run were never sure of getting to their destination in a wholly upright and natural position.

"This fact, the superintendent said,



"WITH PATIENCE AND FORTITUDE EBENEZER EXPLAINED THAT WHAT HE HAD INVENTED WAS A COUPLER, NOT AN UNCOUPLER."



"WHEN HE GLANCED AROUND HE SAW EIGHTEEN OR TWENTY SITTING ON TOP OF A RAIL-FENCE LIKE CROWS ALONG THE EDGE OF A CORNFIELD."

was continually creating vacancies in the list of brakemen. He admitted that this was rather hard on the brakemen, but said it had a tendency to hasten the day when the road would be in a better financial condition, since every time one of its trainmen met an untimely end, his accumulated salary was promptly crossed off the books, and the company's indebtedness was thus decreased.

"So Ebenezer became a brakeman. At first it did seem he had hit upon the right occupation, for in an incredibly short time he became as adept in the use of long, loud, and pointed remarks as many a brakeman who had spent years in accumulating a large, varied, and picturesque vocabulary.

"He could stand at the rear end of the ninth car and literally sizzle the hair on the off side of the engineer's classic brow, and in the very next instant, with scarcely any effort, fire at the conductor, sitting peacefully in the lookout, a single shot, a platoon volley, a company volley, and the grand slam-bang all at once. The rapid progress which Ebenezer made was certainly marvelous.

"But one day something happened that changed the entire course of Ebenezer's spectacular career. At that time automatic couplers were not in use on freight trains, and one morning Ebenezer lost a finger.

"This was unfortunate, but not commendatory on the part of Ebenezer. A brakeman who, just as an effort is being made to make up lost time, goes and loses a finger, is in immediate need of a new finger or of surgical aid for such as is left of his old one, and it does not pay to try to put a new finger on a brakeman. It is easier to get a new brakeman.

"A new one, even though he be handicapped by the lack of a mastery of virulent English, works better than an old brakeman with a finger roughly and unscientifically attached. Besides, during the hurry and confusion incident to making the next station ahead of number two is no time to put new fingers on brakemen.

"We naturally expected that Ebenezer would be greatly grieved by the loss of his finger. Most men do not enjoy being deprived of the use and companionship of a robust and full-fledged finger right in the springtime of manhood, but Ebenezer was different from other men.

"He rejoiced that the accident had happened, and congratulated himself that

the finger had been amputated from his right hand. He declared that ever since losing two fingers from his left hand and only one from his right, he had felt unbalanced; that it had been impossible for him to close his eyes and walk in a straight line; that having one finger more on one side than on the other had swayed him to one side, and otherwise made him feel uncomfortable and unnatural.

"But, he said, having now lost an equal number of fingers from each side, his equilibrium had been restored and he felt more like an average, equally developed individual.

"Ebenezer couldn't couple cars for several days, but there were other things he could do, and he did them. Among other things he suddenly discovered that Nature had intended him for an inventive genius. He spent nearly a week bitterly regretting that he had not made this important discovery sooner; that he had spent so many years in other paths of endeavor, and then he started in to invent something.

"Despite the fact that patents had been granted for automatic car-couplers every day for years, he applied himself energetically to the invention of another. He toiled wearily, but not entirely in vain, for after using up all the loose lumber around the shops in making models, he produced something that possessed the virtue of being different from anything else the mind of mortal man had ever conceived.

"The complications paramount in Ebenezer's contrivance were too much for me. I can't describe them. But Ebenezer said that when it once secured a grip on itself, it would hold till the cows came home, and I think it would.

"The model which he had whittled out was carried carefully into the office of the superintendent and placed softly upon the superintendent's desk.

"The super was busy, at the instant, explaining to a couple of dagoes, in the best and smoothest sign language at his command, just when the pay-car might be expected to put in its semiannual appearance, but when he beheld the mysterious device which Ebenezer had placed before him, his hair began to rise up and upper and more up, until it began to look like it was going to pull itself out by the roots and disappear into the azure blue.

"However, Ebenezer explained in a few well-chosen words that the contrivance was not an infernal machine, but simply a modest and inoffensive car-coupler, whereat the superintendent began once more to breathe in his usual free-and-easy manner.

"Then Ebenezer uncorked a bottle of spontaneous oratory and gave a few informal demonstrations with his invention. The superintendent suffered a serious attack of ingrowing admiration, and promised Ebenezer to speak to the master mechanic about the coupler.

"The master mechanic was inclined to be skeptical, but the superintendent mentioned all the machine's merits which Ebenezer had enumerated, and added a few others which the inventor had overlooked in the excitement of the moment.

"He pointed out to the master mechanic that it was the duty of the road to do what it could to preserve the symmetry of its trainmen, and added that half of them could not lose two or three fingers more and have any fingers left at all.

"The Smithville and Jonesburg, he said, could not afford to establish the dangerous precedent of employing fingerless trainmen. So the master mechanic ordered three cars equipped with Ebenezer's patent coupler.

"The day those cars left the shops was a red-letter day in the annals of Ebenezer. He navigated the yards like his corns hurt, and whenever he met anybody he knew, he bowed in a very constrained manner so as not to disarrange the halo encircling his throbbing brain.

"But, unfortunately, a wreck had occurred on the previous evening, and a large portion of the company's rolling-stock was distributed in fragmentary instalments over range twenty-nine, township sixteen. Wherefore, it was necessary to place in immediate service the three cars bearing the circumstantial evidence of Ebenezer's immortal genius.

"When the three cars had been loaded with watermelons, they were coupled into the north-bound local so quickly and easily that Ebenezer's features were bifurcated with a grin broad enough, long enough, and deep enough to destroy for-

ever the childlike simplicity appertaining thereto, and when the local pulled out Ebenezer occupied a reserved seat in the lookout and dreamed a delirious dream of fame, fortune, and the pursuit of happiness.

"Hamilton Siding, to which station

"ONE MAN HAS TO POSSESS A MARVELOUS AMOUNT OF AGILITY IF HE WOULD EQUAL THE COMBINED AGILITY OF A SMALL ARMY OF BOYS."

the cars were billed, was nothing but a side-track on the lone prairie, and when the train arrived two men with a wagon were waiting to haul those melons to the town of Hamilton, three miles distant.

"But when the brakeman attempted to uncouple the coupling that Ebenezer built, that coupling refused to uncouple. Evidently it wasn't its day for uncoupling.

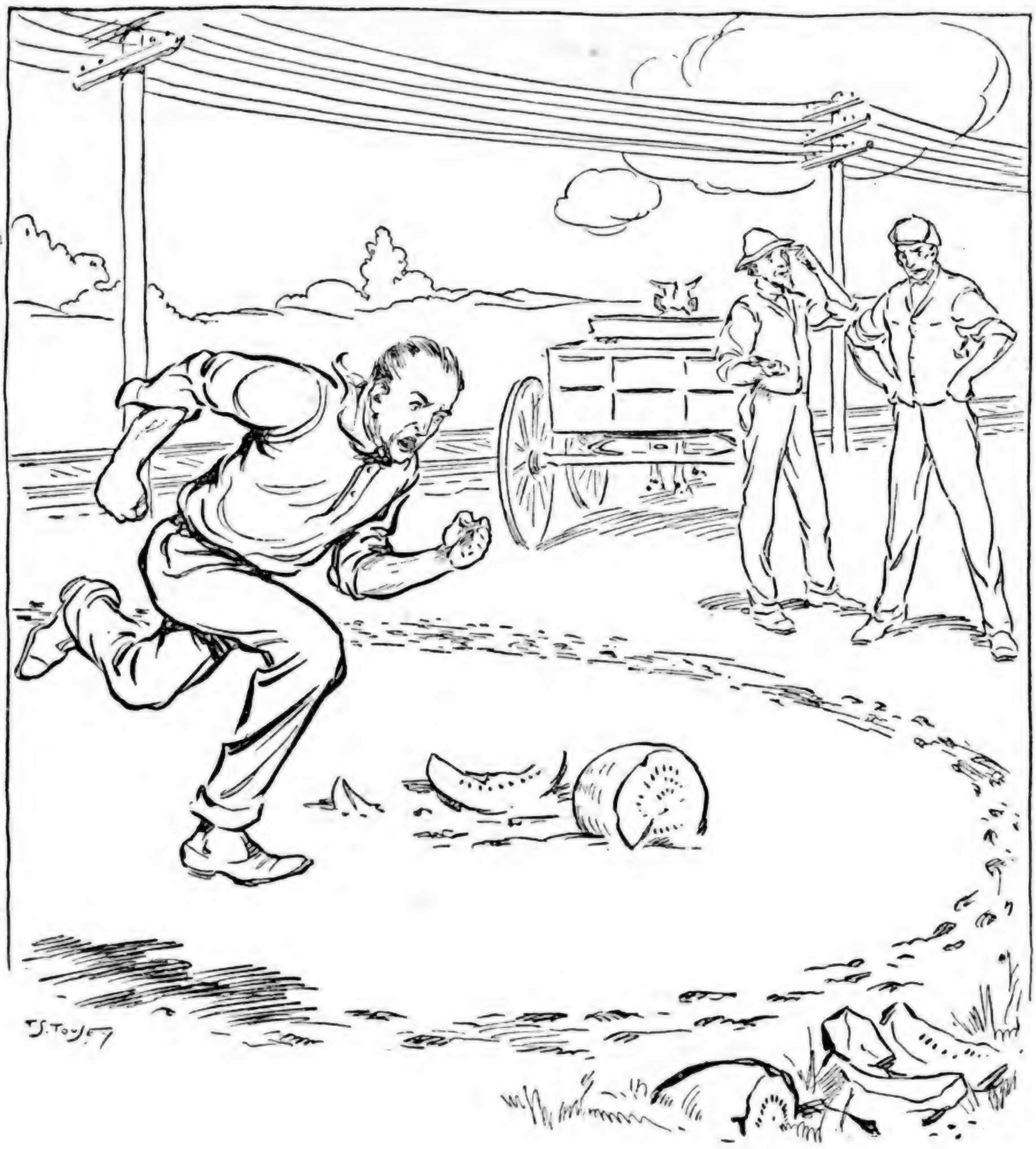
"It had its mind set on that bulldog grip and it refused to let go. It was only mid-afternoon and the cows were not due to come home until dark.

"The brakeman tugged and then he swore; then he swore and then he tugged; then he tugged and swore simultaneously and collectively, but neither muscular exertion nor oratorical effort had any influence upon that coupling of Ebenezer's. It had been made to hold, and hold it did.

"The brakeman appealed to Ebenezer for the combination that would unlock the coupling that Ebenezer built, the conductor appealed to him, the engineer appealed to him, the two men with the wagon appealed to him, but to none of them did Ebenezer reveal the combination. And the reason Ebenezer didn't reveal the combination was because he hadn't the least idea what the combination was.

"With patience and fortitude Ebenezer explained that what he had invented was a coupler, not an uncoupler; that his coupler coupled, and that if he had set out to invent an uncoupler the uncoupler would probably uncouple as readily and as easily as the coupler coupled.

"The explanation didn't smooth the ruffled feelings of Ebenezer's inquisitors, but their violent language was in vain. The coupler still refused to uncouple, and the conductor grew impatient.



"THE INSTANT THEY WOULD RELEASE THEIR HOLD UPON HIM HE WOULD BEGIN RUNNING AROUND IN A CIRCLE."

"But presently a bright idea came to the conductor. If he couldn't leave the cars on the siding, he would have to take them along with him.

"He mentioned the matter to the others. The engineer agreed with him, the brakeman agreed with him, Ebenezer agreed with him, but the two men with the wagon didn't.

"They dared him to take the cars. They said there was going to be a fair or something over at Hamilton on the following day, and if those melons were carried by, they would sue the company.

"The conductor told them to go ahead and sue, or words to that effect. He said he was running that train. They asked him what he was running the train for, and he said he was running it because he was paid for running it.

"Then they told him that if he carried those melons by, they would sue the company for more money than the old company had, and that if they got judgment the company would have to pay the judgment, and that if the company paid the judgment the pay-car wouldn't come along often enough for the conductor to keep up his acquaintance with it.

"That was putting the matter in a new light to the conductor, and he said he was only joking; that he was sorry they couldn't take a joke. He then proposed that they unload the melons upon the ground, but the two men wouldn't agree to that.

"They said that while they were on their way to town with one load, the boys of the neighborhood would devour the rest of the melons.

"There wasn't a farmhouse visible anywhere along the line for three miles, and the conductor didn't believe there were any boys in the neighborhood, but when he glanced around he saw eighteen or twenty sitting on top of a rail-fence like crows along the edge of a corn-field.

"It was really amazing where all those boys had come from on such short notice; but you never can tell about boys. You might not be able to find a boy with a search-warrant in two days, but let three cars of big, ripe, juicy watermelons arrive at a lonely siding in the dead center of six hundred acres of rural scenery, and the boy may be depended upon to put in his appearance. That is the sort of an animal a boy is. He is thoroughly dependable on occasions of this kind.

"The conductor, the engineer, the brakeman, the owners of the watermelons, and Ebenezer talked the matter over. They conversed for some little time, while the boys waited patiently. Nothing else in the world could have remained so quiet as those boys did.

"Finally it was decided that as Ebenezer's coupler wouldn't uncouple, and as the train didn't have time to loaf around till he had invented an uncoupler, the melons must be unloaded on the ground, and Ebenezer would have to stand guard over them.

"Ebenezer didn't interpose any objection to this arrangement. He didn't mind parting company with that particular train-crew right then; he thought he would a little rather do it. Besides, he wanted to think, and he thought that in the middle of a far-stretching prairie was a pretty good place to think.

"So the watermelons were unloaded and the train proceeded on its way. As soon as the wagon had been filled with melons and had disappeared along the dusty road, one boy climbed off the fence. Then a second boy did likewise, and a third, and a fourth, and so on until the fence was entirely deserted.

"The boys advanced five paces toward the pile of melons and looked at Ebenezer. Ebenezer looked at the boys and shook his cane. The boys grinned.

"Then, while several of them advanced calmly and confidently toward Ebenezer, the others executed a flank movement so as to approach the unsuspecting melons from the other side.

"Three car-loads of melons make quite a pile. A small mountain, in fact. Ebenezer could not very well climb over the top of them, and it took some little time for him to run around them.

"But he did the best he could. He ran around and around from right to left until he grew dizzy, and then he reversed and ran around and around, from left to right. And all the time he kept up a rattling fire of conversation.

"Presently Ebenezer discovered something that had never before occurred to his scientific mind: A square pile of melons has only four sides, whereas a round pile has any number of sides. This was a round pile, and as the boys had been greatly reenforced there were now a sufficient number of them to approach the pile from any number of sides.

"This naturally had the effect of increasing Ebenezer's agility to a point where it was a surprise even to himself. He never had thought he could develop so much agility on such short notice.

"But one man has to possess a marvelous amount of agility if he would equal the combined agility of a small army of boys. Ebenezer wished he might have had time to sit down and calmly calculate the amount of agility it would be necessary for him to display, but he didn't have time. He had to keep on running.

"He would circle the pile of melons three hundred and twenty-eight times in one direction, then he would circle it three hundred and twenty-eight times in the other direction, and then he would begin to count all over again.

"He kept this up for one hour, eighteen minutes and twenty-two seconds, and then he began to lose interest in the proceedings at a marvelous rate. It seemed to slip from him all at once.

"An hour later, when the two men with the wagon returned, they found a row of watermelon rinds extending for some little distance in the shade of the fence. Also they found Ebenezer.

"Ebenezer was reposing horizontally upon the green sward. His face and his

feet were pointed toward the sky, and his arms were stretched at right angles to his body. Such interest in life as he retained was what story-writers call 'suspended interest.'

"It was entirely suspended. He didn't know whether the world had come to an end or not, but he hoped it had.

"It took the men two hours to get him back to consciousness, and it was another hour before he could stand on his feet. Even then they had to address him in soft and soothing tones.

"The instant they would release their hold upon him, he would begin running around in a circle and otherwise conducting himself in a peculiar manner.

"When a man acts that way it is quite evident he has passed through a thrilling experience, and it is often necessary to send him to a hospital. Ebenezer was sent to a hospital."

The old yardmaster paused to listen as a whistle sounded far down the track.

"But what became of him?" asked Bill Sharpe.

"What became of him?" repeated the yardmaster, lighting his pipe. "Well, the last I heard, he had answered another call of Destiny. He discovered a widow woman who was conducting a considerably remunerative eating-house.

"Also, he discovered that Nature had intended him for a husband whose chief duties would be to mutilate meal-tickets and patronize the remnant counter at third-class butcher shops. He married her—but here comes twenty-eight."

THE FIRST RAILROAD FEVER.

A Glimpse of English Railroad Speculation in 1845 Through the Eyes of a Writer of the Time.

ALTHOUGH there was considerable opposition to railroads in their early days, as there was to the beginning of nearly every great industrial movement, it was only twenty years after the first practical application of the locomotive engine as a commercial asset that the great railway mania came.

It is interesting to turn to some of the contemporary newspaper opinions of that time. As an example, the following extract is from a copy of the *Illustrated London News* of the year 1845:

"At every turn do you meet with excited victims inoculated with the railway disorder and brimful of wondrous tales of somebody with nothing yesterday and today rolling in thousands. You walk quietly into your butcher's, on your way to town, with your mind—that is, the mind of your stomach—nicely balanced between a loin or a leg for the morrow's dinner, when the hitherto quiet, obese slaughterer leaves, with the most alarming vivacity, a half-dismembered leg of mutton, and takes you by the button into his back parlor, and asks you, as a man of business, which is the line that is sure to tell, as he will, upon your word, write for five hundred shares; for the man at the little cagmag shop round the corner, wrote for a bushel of shares that went up ever so much, and nobody knows what he has made.

"Even your baker, a careful Scotchman, apologizes for intruding upon you, but begs you to inform him where some crack-jawed named line is situated, as he has paid his first deposit, and should like to have some better security for his money than the zinc plate against some doorway in the city which has the aforesaid out-of-the-way name upon it.

"The poor country! Everybody's brain is turned; trade is topsyturvy; the cobbler no longer sticks to his last, and every man gets into a new line.

"It is now railroad distances; a man talks of going thirty miles home to dinner with perfect nonchalance; nor does it create surprise for a friend to be talking to you at midday in Cornhill of something he saw in Birmingham that morning as he sat at breakfast.

"Boys to be available must be engineers, to walk about with theodolites and magnified dog-chains, for nothing will be attended to until we have *lined* the globe into a railway cage. That word *line* has become the staple one of the language. The world is mad upon it; so much so, that a country friend wrote to me the other day to buy him fifty shares in the Equinoctial Line!"

HELP FOR MEN WHO HELP THEMSELVES—NUMBER 12.

THE RAILROAD OF TO-MORROW.

BY JOHN ELFRETH WATKINS.

PROPHECY is a vain and fruitless occupation. Therefore we shall not attempt it. But reasonable deduction from present tendencies and indications is not prophecy. Therefore we have no reluctance in publishing the following article.

Of course, no one knows what The Railroad of To-morrow will be like, but we know something of the forces that make for progress to-day and the direction in which we are moving. Beginning with this knowledge we can make some shrewd guesses as to what will happen in the near future, always barring the unexpected great invention or discovery that may alter the whole course of advance.

Broader Gage, Straighter Track, Lower Grade, Heavier Rolling-Stock, Electric Traction, and Higher Speed Among the Things the Present Promises for the Future.

WRITING of the transportation systems of the future would be a matter of small difficulty if it were merely a case of sitting, pen in hand, and dreaming fanciful dreams of express-trains propelled at lightning speed through the skies by aerodromes or over monorailways by gyroscopic motors. Such imaginings serve a legitimate purpose where the diversion of the reader is the sole object.

But in this article it has been the purpose of the writer to state probabilities rather than possibilities. Prophecy is not as yet an exact science. Until it becomes so, the only honest course for the prognosticator is to mark out the direction which evolution has followed in the past, and then to extend it from the present forward along the same straight line as far as the logical mind can perceive.

The most interesting of recent prophecies as to the railway of the future comes from E. H. Harriman.

"It is only a question of time when the six-foot or the five-and-a-half-foot gage must come," says he. "With a greater gage, of course, we get greater capacities. There are only three ways in which an engine can gain more power: it must be lengthened, broadened, or made higher; and it cannot grow on our

present gage of only four feet and eight inches.

"Now, if we increase our car-capacity we simply increase the dead-weight to be drawn by our engines. But if the change in gage is far away, the next best thing for increasing the tractive power is electricity. With electricity there would be a saving on the fuel proposition, whereas at present we use up fuel to carry our fuel.

"In time, the general electrification of the railroads will be a necessity. In the meantime, the railroads are developing their facilities as fast as they can. The future road will be one of double tracks, four tracks, sidings, and spur-tracks.

"Then every precaution must be taken to eliminate accidents. Every tried safety device must be used. It will cost much—a great deal of money—to equip the railroad of the future in the manner I have outlined. We must have more roads; we must open up new territories, and these new roads must be equipped with all modern appliances."

All Railways Electric.

The railroads of the future are certain to be electric—as certain as anything in the future can be. The substitution of electricity for steam will be a necessity, in time, as Mr. Harriman says. Every straw that flutters shows that the wind is in that direction, and Mr. Harriman is by no means the only one who foresees it. In the engineering literature of the past few years it is the most popular topic, and where there is one article favoring the retention of the steam locomotive there are a hundred advocating the electric.

There is every reason why the electric locomotives will crowd out that of steam on trunk-lines as well as suburban roads. Recent experiments on the New York Central, the New Haven, the West Shore, and on foreign roads, have taught the lesson of superiority.

In the first place, the electric line will take trains of closer headway. Greater business can be done where more frequent trains can be run.

Higher speeds will be safe because the electric locomotive has not the unbalanced reciprocating parts which tend to lift the steam locomotive from the track and cause derailments. Electric trains will be cleaner, more easily heated, lighted, and ventilated.

There will be no smoke, gases, or cinders to annoy passengers. Accidents will be fewer, because in the electric locomotive the power can be shut off much more promptly than in that of steam. There is, moreover, much less danger from fire in the short-circuit of the electric than in the overturned fire-box of the steam locomotive.

Still another advantage of the former is that it has no boiler to explode. In the absence of smoke, signals can be seen more easily. Its electric heaters eliminate the risk of fire in the cars, in case of accident, and its use of electric-light is much safer than that of oil or gas.

Collisions can be averted better on the electric road, where the automatic shutting off of power on a section of track can enforce obedience to a danger-signal which the engineer may ignore. For hauling freight the electric locomotive will be found superior because of the possibility of making up larger train units at a lower cost per ton mile.

But, on account of the great cost which will be entailed, the universal change from steam to electricity, certain though it be, will not come quickly. Steam equipment must be reckoned with for some years.

Along what lines, then, will the steam railroad develop before giving way to that operated by the subtle fluid—that man-made, man-controlled lightning which only the heavens themselves could produce in the ages of the past?

Steam Locomotive of the Future.

Passenger and freight locomotives will grow farther and farther apart in design, while within each of these classes those of all countries will grow more and more alike until there will be practically one universal type for passenger and another for freight service the world over.

The passenger locomotive of the future will be a four-cylinder, balanced compound using steam of high pressure. As fuel grows more expensive, superheated steam will be used in addition to compound cylinders. There will also be an improved type of valve-motion.

The locomotive for freight will be either a tandem compound with a rigid driving-wheel base or a single-expansion engine working with superheated steam.

To meet the increasing demands of heavier traffic and higher rates of speed in all steam locomotives there will be a continuous increase in the pressure per square inch at which steam is used. This, too, will be but an extension in the direct line of past evolution.

In 1870 the average steam pressure used on locomotives was about one hundred and thirty pounds to the square inch. By 1890 it had risen to one hundred and sixty pounds. To-day it is frequently two hundred and twenty-five pounds.

Fuel of the Future.

Boiler plates will grow heavier and heavier. The increase since 1890 alone has been from one-half to nine-sixteenths of an inch to seven-eighths of an inch in thickness. Fire-boxes, of course, will be made much larger as soon as the gage is widened, and with this change will come increase of grate surface, both giving the larger steam power sought through the wider gage. There will be an increasing use of steel castings in place of cast or wrought iron.

Mechanical stokers will be necessary on these larger locomotives. The firing of the huge boilers in use even with the present gage presents a problem, and the ability of the fireman has about reached its limit. Further increases will make it necessary to add another fireman, and eventually the mechanical stoker will be in universal use.

Before the steam locomotive goes out the entire fuel problem will have changed. An internal combustion engine enabling one ton of coal to do the work that ten tons do to-day will perhaps have been perfected. Engineers battling against the waste caused by the fact that, out of every ten tons of coal burned on locomotives now, about nine tons are wasted, are now hard at work on such an invention.

But before this comes about, denaturized alcohol or crude petroleum may have replaced coal. Weight for weight, the combustion of oil is nearly twice as great as that of coal, but in most localities to-day the price of coal is less than half that of oil. This may change, however, in the near future, if the oil monopoly is broken up.

The farmers of the country do not yet appreciate the vast possibilities of denaturized alcohol, and the government in each of the State agricultural colleges is to teach them how to manufacture it from waste material. Once they have learned the knack of making it in abundance, this new fuel will commence to force petroleum to the wall, and the railroads may use it instead of coal, whose price must steadily increase unless vast mines hitherto unknown are opened.

The world's hard coal supply now in sight will be exhausted by the year 2050 or 2100; the soft coal supply by 2200 or 2300, according to the estimate given to the writer by one of the coal experts of the government. Meanwhile, coal prices will increase, and electricity manufactured by the vast water-power now wasted in our inland rivers and streams will have been found eminently cheaper for all power purposes.

The widening of gage will cost hundreds of millions of dollars, and all great railroads must by mutual agreement make the change simultaneously. Otherwise there will have to be a return to the old chaotic days of cars with convertible gage.

Indeed, this universal widening of gage will be about the costliest revolution which can occur on our steam railroads, costlier perhaps than the change from steam to electricity. It will not be a mere matter of laying the old rails farther apart. It will mean the widening of all tunnels and bridges now used by the iron horse.

More Weight in the Rails.

Practically none of our tunnels or bridges have the clearance necessary for such a change. Moreover, it would mean new road-beds and new rails, necessitated by the broader, longer, higher, and heavier locomotives built to ply these greater roads.

The rails themselves would have to be heavier, the ballast deeper, in order to support the increased tons on each driving axle of the locomotive and the

increased weight of freight-cars. But so far as strength of rail and road-bed are concerned, it will be but a continuation of the evolution which has been going on since our railroads passed from the experimental to the commercial stage.

Within the memory of veterans of the rail alive to-day, a freight-car could carry a paying load little, if any, greater than the weight of the car itself. To-day we have freight-cars weighing forty thousand pounds carrying loads of one hundred thousand pounds. These same veterans can remember the standard freight-locomotives bearing eighteen thousand to twenty thousand pounds on each of their two driving-axles; but the average freight-engine of to-day bears about forty thousand pounds on each of its—not two, but four—driving-axles.

Not Only Bigger, but Better.

Indeed, we have giants with fifty-six thousand pounds on a driving-axle. With this increase in locomotives and cars, the rails have been increased in weight from fifty-two to seventy-five pounds and over; the Howe truss bridge has given way to heavy steel bridges with modern masonry, and ballast has increased from nothing to a depth of twelve inches. And, as Mr. Harriman points out, all of this permanent way must be ripped up and made still heavier, still wider, still deeper.

The rail of the future must not only be bigger but better. Engineers now at work upon the vexed problem of the broken rail suggest that it may be necessary to abandon the Bessemer process of rail-making and substitute the open-hearth.

This would be a return to a slower method of manufacture, but where the need arises of making the open-hearth process quicker and cheaper the means will be supplied by inventive genius.

Ties will be much more enduring than they are now, and from the creosoted tie the development will probably be toward the tie reenforced by concrete. This will come after the great trunk-lines of the country have passed the era of reaching out and have settled down to permanent improvement — the stage in which the English roads already find themselves.

Grades will be reduced on all trunk-lines, and hundreds of millions will be spent, not only in this way but in cut-offs wherever right of way can be had. Wherever a hundred feet of climb can be saved by lowering grades, or a few miles can be saved by straightening track, the contractor will be put to work, this evolution being toward main lines as nearly level and as nearly straight as the physical obstacles of the continent will permit.

The beginning was made by our railroads when the Southern Pacific spent eight million dollars to save a few miles and two hundred feet of climb around the head of Salt Lake, and it has been predicted that the same road will in the next few years spend ten million dollars more to save a few hundred feet of climb over the Sierras; also, that the Santa Fé will shift all of its freight down through Texas in order to avoid the mountains.

All tracks through cities and towns will be either elevated or run through subways or tunnels. The grade-crossing will be a thing of the past, and after the great systems have passed their era of extension, rights of way will be fenced in throughout the open country. Wagon roads will cross tracks either overhead or underneath.

This absolute protection of rights of way will not only reduce the claims of trespassers killed by trains, but will enable better policing for the protection of passengers from meddlers or train-wreckers. The more complicated mechanism of the block-signal systems of the future will demand such absolute safeguards against meddling, and laws will make trespassing upon the right of way a punishable offense.

Collisions Well-Nigh Impossible.

Collisions will be rendered practically impossible by improved automatic block systems of train control developed first along the lines of the method now used in the New York Subway, where, if the motorman does not heed the semaphore, a catch at the side of the track turns off his current for him.

Similar devices for the giant steam locomotives of the future will reduce the speed automatically when a distance-signal is unheeded, and both apply the air and reverse the engine where a home-

signal is not observed. The general electrification of our railroads will render this automatic train control absolute, the current being shut off in the block which will be left vacant between all trains.

Congress will pass laws requiring such block systems on all interstate lines, and the State legislatures will demand them on intrastate roads. It will be a statutory crime to allow trains within the forbidden blocks or to run two trains in opposite directions on the same line of track.

Main lines of the large systems will be six-tracked. The middle pair of tracks will be used respectively for in and out bound freight, and the outer pairs will be reserved for in and out bound express and local passenger service. Eventually it will be unlawful for express and local trains to occupy the same line of track.

In mountainous or hilly country, passenger traffic, which will always pay for a saving of time, will take a straight route over the necessary grades, but freight will be deflected over longer routes of lower grades. The time will also come when there will be separate pairs of tracks for express and local freight, making each main line an eight-track system.

Passing of the Conductor.

Train control will be simplified by the vast improvements in wireless telegraphy and wireless telephone which are certain to be made. The train-despatcher will be in constant communication with the men directing the train.

Each express-train will be commanded by an officer of greater responsibility and more thorough technical training than is possessed by the conductor of to-day. He will be comparable to the captain of the modern ocean liner, and the engineer as well as the remainder of the train-crew will be under his command.

Perhaps he will be posted on the very front of the locomotive, or at least in a position commanding a full view of the line, such as is had by the commander on the bridge of a battle-ship or ocean greyhound. He will not collect fares or answer the idle questions of passengers, but will give his undivided attention to the important questions of train control. Tickets will be collected by pursers employed for that purpose.

The wider gage will increase the comforts of passengers. The term "palace-car" will be better warranted by conditions. Berths, dining-tables, aisles, and compartments will be wider. The wealthy will travel in veritable apartments on wheels, and there will be cars for many more special purposes than are now provided—such as chapel-cars, theater-cars, lecture-cars, ballroom-cars, cars with amusement paraphernalia, with promenade-decks, and with swimming-tanks.

In other words, the tourist by rail will enjoy practically all of the pleasures and diversions of the tourist by sea. As a result of the straighter lines and better road-beds, rocking and lurching of the cars will be reduced to a minimum. Brakes with uniform retarding effect will also minimize the joltings that now result from starting or stopping. When a curve is to be rounded—which will be seldom—passengers will be warned in sufficient time to suspend their diversions.

Great terminals will be monumental in character, and a credit rather than an eyesore to the community. They will be located in the centers of population of great communities and their approaches will not disfigure the sections traversed, because eventually all of their tracks will enter by subways.

The station of the future will not be looked upon as a source of smoke and soot. An increase of popular clamor against the "smoke nuisance" will be one of the factors hastening the advent of the electric locomotive.

The future terminal will be a great central market, wherein space will be leased at high figures. Under its roof or in adjacent buildings will be maintained the leading hotel and department store, the general post-office, and the central police station of the city. From it local subways will distribute passengers to the different sections and suburbs, and these lines will carry baggage, express, and produce cars.

Inside the big terminal there will be separate platforms for baggage and for passengers, automatic annunciators for calling trains, comfortable waiting-rooms where the weary may recline on couches or cool themselves on breezy balconies,

and so pass the time while resting between trains, or until the hour for their departure.

An Age of High Speed.

Great speeds will be attained. To predict what these will be, mere guesswork would have to be employed. It is an easy matter to state specifically that they will be one hundred and fifty or two hundred miles an hour, or that the continent will be crossed in a day. If increase of the artificialities of life render man a more and more nervous, timid, and sensitive creature, as many scientists predict, then high speeds will not meet with a progressive increase in popular demand.

Perhaps there will have to be additional lines of track for persons of different temperaments—for the business men who will forever risk their necks to save half an hour in the day's cycle, and for the leisurely tourist who has time for a more comfortable way of living and less perilous travel.

However, those pessimists who foresee a nervous degeneration in our species overlook the great factor of intellect which will make it possible for our bodies to keep pace with our brains in the latter's mad pace for progress. Thus the speed of our future locomotives will be a matter of popular demand.

The engineer of the future will increase velocities of travel to the limit of the nervous endurance of the average traveler.

How fast are we running? is a question that every traveler asks and hears many times in the course of a short experience on the road. It is a natural human curiosity, this, which prompts inquiry into the rate at which we are annihilating space. In this department in the next number we shall try to gratify it by giving some of the facts in railroad speed and citing some of the records, both schedule and exceptional.

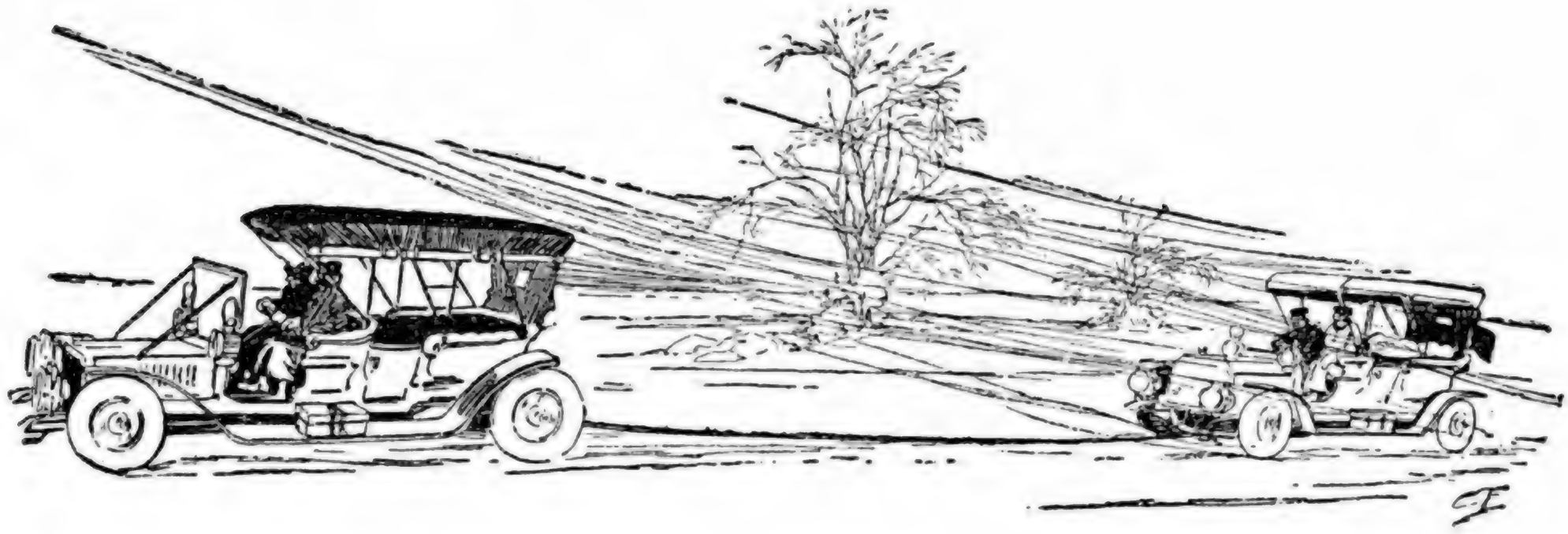
GASOLINE'S NEW SPEED RECORD.

One of the Competitors of Steam Motive-Power Places a Long Run to Its Credit.

A FRESH record was made for gasoline motor-cars recently when a car, purchased by E. S. Babcock, president of the San Diego, Cuyamaca and Eastern Railroad, made a run of two thousand miles over the Union Pacific and the Salt Lake roads, and finished an hour ahead of schedule. The run was from Omaha to Los Angeles.

Mr. Babcock bought the car for use between San Diego and Lakeside at a cost of eighteen thousand dollars. Its run of eight days did not include night-running, and included much time spent on side-tracks, keeping out of the way of regular traffic which was not held up.

C. M. Beard, the motorman in charge of the car, claims that it can hit a seventy-mile gait and keep it up as long as desired. The capacity of the car is two hundred horsepower, and it seats fifty passengers.



THE VANISHING AUTO.

BY HENRY M. LUMMIS.

An Adventure of the Night When Mystery Stalked Along the Trail Across the Border.

BR-R-R-R-R-ING! "Answer that, Alfred," I called to the apprentice, as I dropped into a chair by the stove and passed a cigar over to Jonesy.

Though I had delegated the duty to the boy, business instinct bade me listen to the one-sided conversation.

"Hello," said the lad. "Yes, sir. . . . Yes, sir. . . . Whereabouts? . . . Yes, sir. . . . No, sir, not in stock; we'd have t' get it for ye. No, sir, not out there; we'd have t' have th' car at th' shop."

"They want us t' tow 'em in?" I mumbled some uncomplimentary things about "them" to Jonesy as we listened to the howl of the rain and wind without.

"Oh, I guess about half an hour," said the boy, continuing. "Wait; I'll ask Mr. Brooke. Hold th' wire."

"Who is it, Alfred?" I asked, as the lad approached.

"I dunno," said he. "Some feller says he's stalled with a broken radiator, way out on th' Cliff Road, 'bout four miles from Mountain Avenue. Wants t' know kin we tow 'im in. Feller telephonin' for 'em from the Mountain House."

The Cliff Road was a rough mountain pike, leading from the avenue, along Sheep Mountain, about eight miles northward to the old Cisco Trail over the Canadian border, and a more desolate, isolated, lonely highway, even on a clear day, it would be hard to imagine.

"Oh, yes, certainly," I said. "I'm simply pining away for a chase over Sheep Mountain at ten o'clock at night through a forty-mile blizzard of ice and rain. Huh! Darn it, nobody but a microbe would be out there with a car, a night like this. Oh, well, yes, tell him I'll start right out, Alfred."

"Why don't you chase Jim or Warren out after 'im?" said Jonesy.

"Jim's got an all-night job on Dr. Merrall's differential, and Warren's taking a night off. I'll have to go out myself, that's all there is to it," I said, getting into my fur coat.

"Well," said Jonesy, "if you're going out, I'm going with you."

Good old Jonesy, true blue, ever since we were kids, long before either of us bucked the automobile business. He

WE CLIMBED DOWN AND PICKED UP THE END OF THE TOW-LINE. IT HAD BEEN CUT CLEAN THROUGH.

was selling autocars at the time I'm telling about, and used to spend most of his spare time in my garage.

I passed over to my four-cylinder News and lighted my carbide lamps. Jonesy, on the seat, threw back the spark and gave her the gas. A turn of the crank, and the four cylinders went off like a discharge of musketry and then settled down to their rhythmic "chuga-chuga-chuga-chuga," as Alfred rolled the door back.

A withering blast of icy wind and rain crashed against us as we passed through, and I jammed in the second and third speeds almost before we were in the road. We bent forward against the gale, and I sent her up Main Street and around into Mountain Avenue on two wheels. "Honk, honk," and, half in the ditch and half out, we splashed by a wagon, the startled driver shouting madly to an old skate about as excitable as a steam-roller.

Then came the climb to the Mountain House. Up she went, all the way on the third speed with the spark timed to a nicety. Past the old summer hotel, now closed, and out on the Cliff Road, we went.

My carbide lamps made two white patches on the black void ahead, but the vision could not penetrate the rain, descending in blinding icy sheets. A sharp turn of the wheel avoided the sign-post at the corner, and we were on the Cliff Road, bumping blindly over ridge and gully.

The road was seared by the rushing torrent of water, so that I dared not proceed through in the high speed for fear of my low steering-rod hitting a stone or bump. My fingers grew numb with the cold as I held the wheel, and my face burned and smarted under the scourge of the icy particles.

We had gone perhaps three miles, and were keeping a sharp lookout for lights, when we heard a shout ahead. I threw out the clutch and braked her down just in time to avoid a collision with a big touring-car, standing right in the center of the road, in inky darkness.

"Where are your lamps?" I asked somewhat angrily.

"Never rains, but it pours," said a voice. "My generator's out of gear, and there's no oil in my side lamps."

In the glare of my search lamps I saw two men standing by. One was tall and rawboned, with bushy eyebrows, while the other was short and thick set. The latter's face was practically covered by a large ulster collar and a pair of big automobile goggles.

I worked my machine around and backed up to the cripple. Jonesy had fished out the rope, took a turn about their front axle, and made things tight.

"How are your brakes?" I called back.

"All right," they said. "Go ahead," and I threw in my second speed.

I turned and called once or twice

more, and, being answered, felt that things were coming along as they should. Then I nestled my head down into the collar of my coat and paid little more attention to them. The tugging on the rope was plainly perceptible until just before we turned into Mountain Avenue. Here began a down grade to the avenue, which continued, varying only in degree, all the way to town.

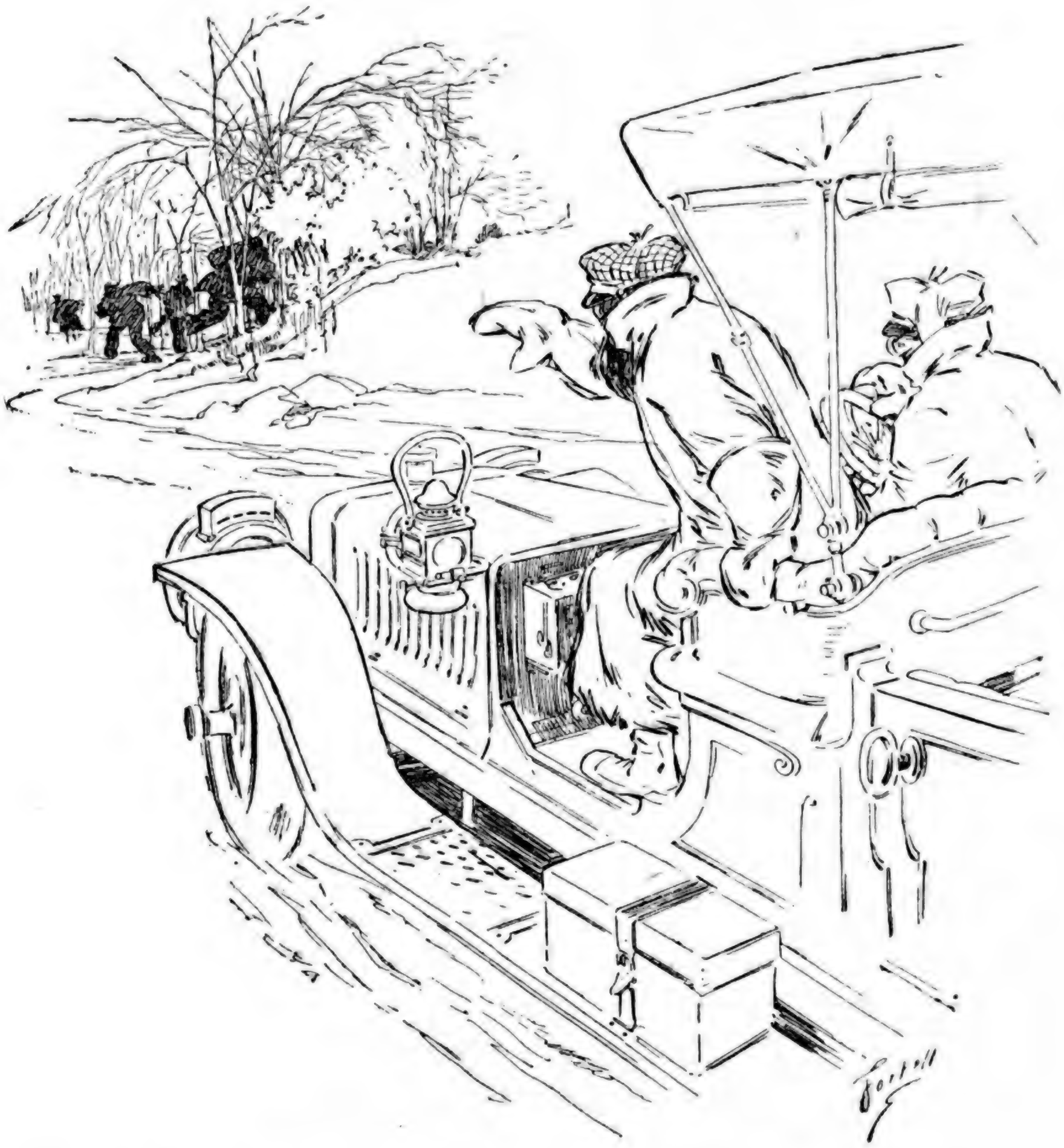
I turned slightly in my seat, at this point, and called out, "Down grade, turn to the right, down grade two miles." I thought it as well to let them know of the turn, for, though they were pretty tightly tied, to continue across the avenue would lead them into an old lumber trail which descended steeply to a wilderness in the valley.

Though they did not reply, I knew they must have heard me. Thenceforth they were apparently managing their brakes nicely, for never a tug on the rope did we feel, nor did they ride up on us.

On we went, coasting gently down toward town, with the storm now at our backs, for which we were thankful, until we approached Main Street. Here was a short up grade, and I gave her the gas and let in the clutch.

To our amazement, the car bolted forward, obviously unhampered by any additional weight on the rope. Jonesy and I looked back and then at each other, aghast, as I threw on the brake.

We were dragging an empty rope. Mechanically, we climbed down and picked up the end of the tow-line. It had been cut clean through.



FIVE BLACK FIGURES JUMPED PROMISCUOUSLY TO BOTH SIDES OF THE ROAD AND INTO THE BRUSH.

"Did you hear any one holler?" said Jonesy.

"They didn't holler," I said, "and, what's more, they cut that tow-line themselves. Nobody could jump in between those cars and cut that rope without getting the rear car on their neck, and it didn't cut itself, not like that's cut.

"The deadbeats! They got hauled to a point where they could coast to most any place they wanted to go, probably some house along or near Mountain Avenue, and then gave us the slip. But you wait; I'll get square with that bunch.

"What was the number of that lemon?" I growled.

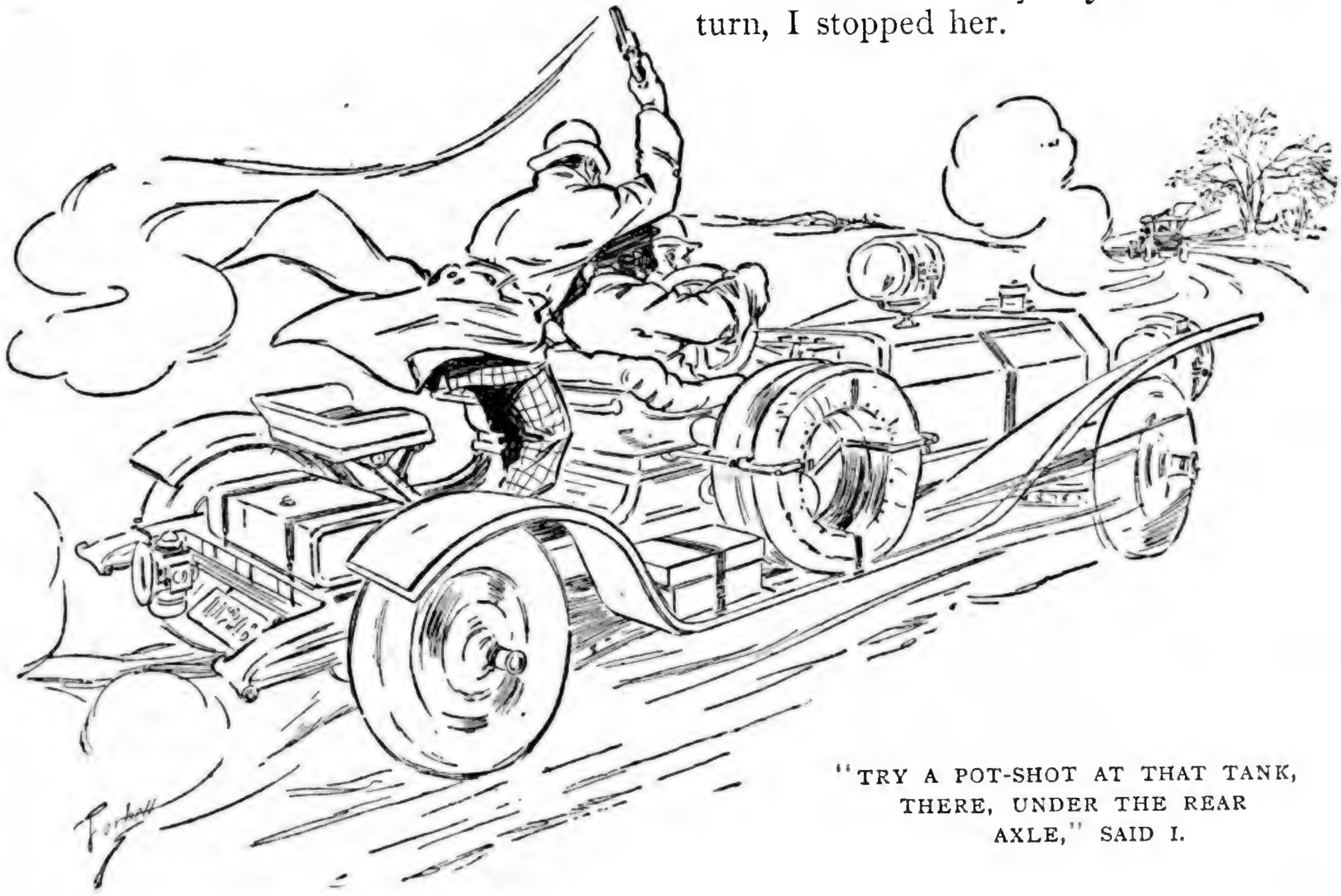
"Thirteen or twenty-three, I should say," said Jonesy, "but I didn't notice."

I pondered a moment, as another thought came to me. Ought I to let it go at that? Suppose the rope had really parted by accident. Suppose they had not known it until too late to make us hear. Suppose—

"Jonesy, I'm going back," said I. "You see, there's just one chance against a thousand that they're all straight and that something has happened to them, and I undertook to bring them in and—well, I'm going back, but not you. You've had enough."

"Yes, me," said he, as he planked himself down beside me again. "You're not going back there alone."

Once more I swung her into Mountain Avenue, in the teeth of the hurricane. Up we went again past the Mountain House, on to the corner of the Cliff Road, the wind and rain unabated in their fury. Just before the turn, I stopped her.



"TRY A POT-SHOT AT THAT TANK, THERE, UNDER THE REAR AXLE," SAID I.

"Jonesy," I shouted, to make myself heard over the storm, "could they have gone straight across and down that old lumber trail?"

"Never in the world," said he. "Their brakes worked all right and even if they had been loose they could have followed our tail lamp."

"Where did you last notice the pull on the tow-line?" I asked.

"That's just what I can't remember, but it was certainly before we struck the down grade on the Cliff Road."

"Just to make sure, I guess we'd better go back where we found them."

Accordingly, I threw in the clutch, and we swung around the corner. As the rays of our headlights flew up the road, we were startled to see a figure step hurriedly from the roadway into the underbrush at the side. In the dim

light the dress appeared black, with a long cape coming to the waist. How a solitary pedestrian happened to be parading Sheep Mountain after midnight on such a night was beyond my comprehension.

We were at the spot in an instant. I felt Jonesy's hand on my arm and stopped.

"Hello!" I shouted. There was no answer.

"Hello, you!" sang out Jonesy, but still no response, although the apparition had certainly not had time to get out of earshot. I looked at Jonesy somewhat inquiringly.

"Sure," said he, divining my thoughts; "plain as day. Let's take a lamp and look around."

I began to feel creepy, somehow. The darkness was absolute, profound. I unscrewed one of my side lamps with one hand while I felt for my revolver with the other. Turning the rays of the lamp into the bushes, we searched up and down for the figure, but the ground might have opened and swallowed him for all we could find.

We shouted again and again, and finally gave it up. Once more we proceeded in the direction of the place where we had found the crippled car. We had gone a mile or so farther, and were rounding a sharp curve, when I threw out the clutch and squeezed the horn.

I shall never forget how strange and unreal it sounded in that wilderness at such an hour. At the first "honk" and the glare of light, five black figures similar to the one we had first seen jumped promiscuously to both sides of the road and into the brush. Again we halted and called, but the silence was unbroken, save by the crash of the rain and wind.

"Beat it, Charlie," said Jonesy. "I don't like it. The woods are full of 'em."

Nothing loath, I let out again, and we were soon at the spot where we had picked up the stalled car. We had seen nothing of them, of course, and I worked my machine around again, and once more we headed for home.

As I hesitated, Jonesy gripped my arm and said in a stage whisper, "Hike out, quick! All at once! Two of the things are right behind us."

We shot forward like a streak. I had cut out the muffler, and we sounded like a battle-ship going into action. Back for a second time we went over the same route, though at a somewhat more reckless speed than before, over gully and high place alike, on the third speed.

The return was uneventful, and we saw nothing of the derelicts. Once, to be sure, when we were nearing the corner of the Cliff Road and Mountain Avenue, we fancied we saw several dark forms dart from the road, but of this we could never be certain. Otherwise, we did not encounter a living soul.

At the garage I turned my car over to Jim, and Jonesy and I beat it for my house, where we stripped off our drenched clothes and tumbled into bed.

Several days after this, Jonesy came in and dropped into his accustomed chair. "Say, Charlie," said he, "your friend of the crippled car has turned up again."

"Where?" I gasped, poising a hammer in mid air in my surprise.

"Over at Kensington," said he, "at Frank Barrow's place. I dropped into Frank's, and was telling him about our hike over Sheep Mountain, when he said, 'I'll bet it's the same guy that got his radiator soldered up here Wednesday. Tall sort o' chap, with thick eyebrows.

"'He drove in with his radiator and tank in a buggy. Car must have been stalled way out in the mud somewhere—buggy looked like he had forded the Missouri River. We had to solder the lower left-hand corner of the radiator shut altogether. Then he paid cash and drove off.'

"I nosed around, but I couldn't get a line on a soul who had seen which way he went. Now, Charlie, I've been thinkin' about that experience of ours, with the deaf-mute specialties in the second act, and there's somethin' darn queer about it all.

"Put two and two together. Those chaps would have had a garage bill to pay, anyway, for repairs, and the dollar or more you would have charged for towing them in would make no difference at all to men who could own that

car. There was some better reason than economy for those gentlemen not wishing to enter town with that car.

"It's pretty clear to me that those chaps cut loose when we had got them to a point where they could roll the car well off the public road, and I believe that down the old lumber trail is just where they went."

"Fake license, maybe," I ventured.

"No," said Jonesy, "I don't think that's it. Nobody would bother them while we had them in tow, and they could get a real license in about five minutes before they went out again if they owned that car. To be sure, I don't just see the connection between them and the black ghosts; but the whole business is queer, Charlie, and I move we run over and put the thing up to the chief, for whatever it's worth."

Accordingly, we drove around to police headquarters. Seated in Chief Glenn's private office, we told the story of our experience of Tuesday night. The chief, tilted back in a pivot-chair, lazily puffing a big cigar, heard us through without a word. When we had finished, he said: "Can you come here to-morrow morning at eleven o'clock?"

"Yes," I said. "You know something about it, then, don't you?"

"Perhaps, and perhaps there is no connection at all, but there will be a party here to-morrow I want you to tell that story to. Meanwhile, don't say anything about it."

At the appointed hour, the next day, Jonesy and I were ushered into the chief's room and introduced to a Mr. Westcott and a Mr. Dahl. The former was a man of perhaps thirty-eight, whose smooth-shaven face disclosed an iron jaw and clear gray eyes. Dahl was rather undersized, but his breadth of shoulder argued the possibility of his being one of those small men who are mighty bad medicine to monkey with.

At the request of the chief, we described our experience on Sheep Mountain, omitting no detail. As we concluded, Mr. Dahl asked: "Are you familiar, Mr. Brooke, with the Cliff Road throughout its whole length?"

"Perfectly, 'way out to the border trail."

"Can you think of any place where it might be possible for an automobile to enter the road otherwise than from the trail, though from the same general direction?"

"U-m, no," I said. "Well, on second thought, I don't know but I do, too. About a mile and a half this side of the trail one of those old lumber trails comes in, and I've often thought a car could get over it, at least, as far up as one could see through the timber."

"Well," said Westcott, rising, "will you be at your garage this afternoon?"

"Yes," I said. "Will you call?"

"In all probability we will, and meanwhile, we're very much obliged."

I didn't quite know why I was being thanked, but we cleared out, Jonesy going off about some of his own business and I home to dinner. Two o'clock found me at the garage, putting a new spark-plug in my pet car, when the big door slid back and Westcott came in.

"Dahl will be here in a moment," said he, watching my operations with an evident desire not to interrupt me; presently the latter came in.

When his friend had appeared, Westcott asked: "Can you take us out for a little run over the Cliff Road this afternoon, Mr. Brooke?"

"Sure thing," said I.

"Have you got a fast car?" Dahl asked.

"I can get fifty out of the News."

"U-m, might not do," he mused. "Of course, we're only going out to look over the ground, but, at the same time, we might run across certain parties who wouldn't share our desire for polite conversation, in which event it would be particularly desirable to have a little speed with us. Can't you dig up a faster car?"

I pondered a moment. There was Mr. Waldron's Doucet racer; but would he care to let it go out? I could ask him, anyway. I went to the telephone, and in a few minutes I had the promise of a car in which I had crowded a hundred miles an hour on smooth macadam.

"Good enough," said Dahl. "Now, Mr. Brooke, if we should run in with certain parties, the game may get a little dangerous. Are you armed?"

"I've a thirty-eight in my desk," I replied. "I'll get it."

I was soon rolling the long racer up Mountain Avenue, with Westcott by my side and Dahl in the folding seat behind. With her enormous wheel-base, she went over the rough spots with never a jar, and we were soon skimming along the Cliff Road. Past the place where Jonesy and I stopped for the disabled car, two, four, six miles more we went, when we observed, on the left, the old lumber trail of which I had told the detectives.

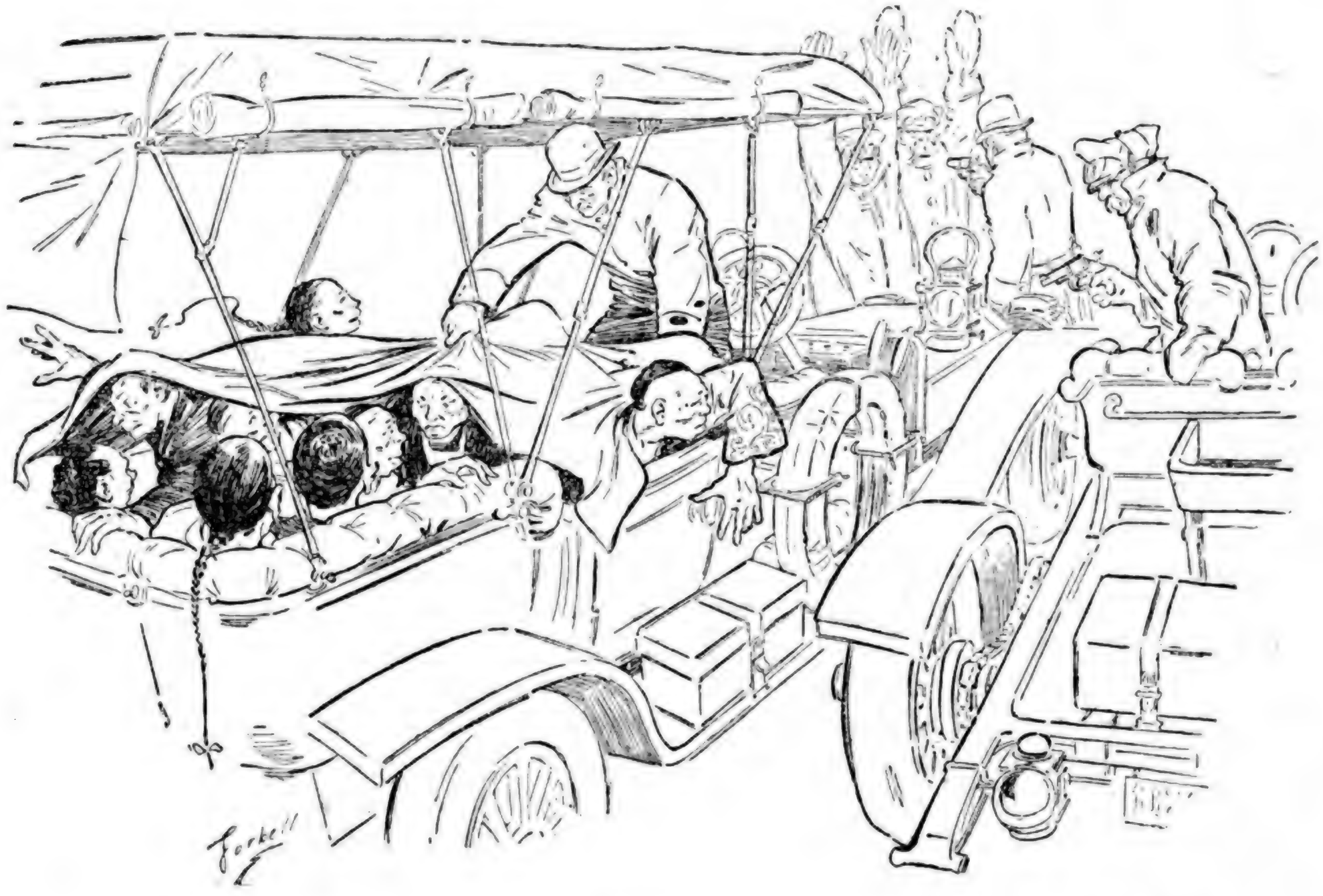
"We'll have a look at that road when we come back," said Dahl, and we rolled on as far as the Cisco Trail.

Turning about, we began to retrace our way. When we arrived at the old trail we were surprised to see broad wheel-tracks emerging from the trail. Obviously, they had been made since we passed on our way up.

"Let her out!" said Westcott. "We'll look him over."

I threw in the speed and gave her the gas, advancing the spark little by little, until we seemed to soar through space. It didn't take long to overhaul them, and, as we flashed past, we observed that it was a Blaston touring-car. The driver was a large man, and wore a big coat with the collar turned up about his face, and a pair of goggles.

His companion on the front seat was quite undersized, and also wore goggles. The tonneau seemed to be filled with some bulky freight, covered with robes, but the circumstance which gave me a peculiar thrill was that a lower corner of the radiator was filled in, apparently with solder.



THERE, PETRIFIED WITH FRIGHT, MADLY GRIPPING EACH OTHER PACKED LIKE SARDINES IN A BOX, WERE TEN CHINAMEN.

I throttled the Doucet at the roadside and awaited their approach. They were about to pass when Westcott hailed them. As I might have expected, they simply jammed in their top speed and lit out, and by the time I began to sit up they had a quarter of a mile start, though I was bowling after them, working in my speeds.

I laughed as I thought of a touring-car trying to get away from the racer, when one of my cylinders began to miss, and soon the exhaust changed from the usual "chuga-chuga! chuga-chuga!" to a mean, abortive "chuga-chug! chuga-chug!" and I knew we were running on three cylinders.

Could we do it, thus handicapped? I cut out the muffler, and we banged

along like a battery of artillery. Mile after mile was reeled off, and yet we seemed not to have gained or lost a hair's breadth. Westcott was leaning forward with an enormous pistol on his knee, while another was resting on my shoulder in the hand of Dahl, who was standing, holding onto both of us.

"What's th' matter?" yelled Westcott.

"Engine's on the blink," I replied. "Don't you hear? One cylinder's dead."

"Can you pull them down?" he asked.

"I'm doing my best," I yelled back.

"Is there anything I can hit on that car, to put it out of business?"

"Why don't you shoot into the tonneau?" I said. "That may make them sit up and take notice."

"That's just what I don't dare do," said Westcott ambiguously. "Their cargo's in there."

"Then try a pot-shot at that tank, there, under the rear axle," said I. "If you can get through the bottom with a ball of that caliber, they'll lose their gasoline in a thousand feet."

"Bang!" went the gun from our swaying car, and a smile of appreciation of the magnificent marksmanship came over my face as a dark, wet streak appeared in the road ahead of us. Then the Blaston began to miss, and they stopped her. We were upon them almost before the big fellow could take his hands from the wheel.

As he did so, one hand sought his pocket, but he changed his mind, and they both touched the roof as he found himself looking into the business end of Westcott's gun. His companion was all in long ago, and his teeth chattered audibly as we tried to induce him to lower his hands sufficiently to receive the handcuffs.

Dahl then took the goggles from their eyes, and we had a full-fledged Chinaman in European dress, while the big fellow was my friend with the bushy eyebrows.

"Let's have a look at the cargo," said Dahl, passing over and pulling the covers from the tonneau; and there, petrified with fright, madly gripping each other, packed like sardines in a box, were ten Chinamen.

How many future dispensers of chop suey and clean collars our friend had smuggled across the border in the Blaston, over the old lumber trail, for a goodly sum per head, will never be known, for Uncle Sam is not gentle in his treatment of those who break his immigration and other laws, and our friend of the bushy eyebrows is not so situated at present as to make conversation either easy or agreeable.

I got the cripple to the garage this time, and was well paid for both efforts, while the disproportion of our own fears and the terror which our glaring lights and pounding cylinders must have struck to the hearts of certain dark forms we encountered one Tuesday night of memory, is a subject of considerable merriment for Jonesy and me.

Westcott and Dahl? Why, they were secret-service men who had been looking for "bushy eyebrows'" trail for a long time, sure!

CREDITABLE TO BOTH.

THE car was an open one, and the sun shone right straight down in her eyes. When the conductor came to collect the fares, pointing like a queen to the shade, in a cold, harsh tone she said: "Conductor, pull that curtain down."

The conductor paid no more attention to her than to the grinding of the wheels. Again she called to him, this time a little louder; but the conductor was very busy just then, collecting fares in another part of the car, and the other passengers began to sit up and take notice. As the conductor passed her on the way back to the platform, he was met with:

"Conductor, pull that curtain down. What are you waiting for?"

"I am waiting for you to say 'please,' madam," said he, quiet and courteous.

Her face flamed up, and I thought to myself there would be something doing.

"I should have said 'please,' I know," said she softly, "and I beg your pardon."

That curtain came down with a bang, and the rest of the passengers nodded and smiled to themselves.—*Keithsburg News.*

FATHERLY FRENCH RAILROADS.

No Employee on the Lines of Modern Gaul Need Fear Poverty, Sickness, Age, or Large Families as Far as Financial Considerations Go.

PROBABLY because the American railroad man is much better off financially than his Europeon brother, the American roads have not done anything like the amount of social work among their employees that has been done on the roads on the other side of the Atlantic.

French railroads are particularly paternal, while the English roads are very little different from the American roads in their relation to their employees. In an article presenting a picture of the social work on French railroads a writer in *Harper's Weekly* says:

"The railroads of France cover thirty-four thousand seven hundred and seventy-eight kilometers, and employ two hundred and sixty-three thousand men, each one of whom is independent, comfortable, and care free. He needs have no anxiety for the future of his family, for he knows that he will receive his pension when he becomes too old to work. He saves from twelve to twenty per cent per diem on living expenses.

"All the men who work on the roads are lodged free of charge in houses built by the companies, and as a rule their fuel and lights are supplied free. In exceptional cases payment is made at the price for which the companies obtain their own lighting and fuel.

"When the employee does not need a house he is allowed the rent equivalent, the money being deposited to his credit with his retirement fund. The building and loan associations maintained by the companies build houses for the employees and lend money at three per cent.

Marketing Made Easy.

"By forming societies which work under their own auspices, or by contributing to the employees' independent associations, all the companies have made it easy for their workmen to buy provisions, furniture, clothing, and household goods of every kind. The railroads have established general stores, which are open to all who work on the roads, and sell goods at cost prices.

"When a man changes his run, or when the company moves him to a new station, if the cost of living in the new place exceeds the cost of living in the old, allowance covering the excess is added to his pay. The company helps him pay for his uniform. In 1906 the railroads' bill for uniforms for their employees amounted to one hundred and twenty-five thousand dollars.

"When a man has two or more children, and his pay is below a certain amount, the company supplements his salary in order to enable him to bring up his child in a manner adequate to his dignity as a representative of the road. If he has needy relations dependent upon him the company allows him money enough to do his duty, as he sees it.

Encouraged to Travel.

"Employees and their families travel on their own lines on passes, and the passes cover all the 'dependents,' indigent offshoots of the family, and the children who may be under care of the family. On all lines except his own, the railroad employee and his family pay one-quarter fare. Once a year every employee has a right to travel free on all the lines; the company takes it for granted that it will do him good to see the total railroad system of France. The women of the family go to and from the market on trip tickets, and the children travel free of cost to school and back.

"Doctors, nurses, and need are furnished. So, well dressed, well fed, well housed, with money piling up against the idleness of his latter years, assured of the well-being of his family, the French employee dances gaily through his twenty-five years of active service; or, if incapacitated, ends his days a pampered invalid.

"During sickness his pay goes on. Some roads allow their employees full pay for six months of sickness, with the right (when supported by a doctor's certificate) to increase the time to an additional six months' full pay, followed by six months' half pay. The families of the employee also receive free medical attendance."

BY RIGHT OF PURCHASE.

BY HAROLD BINDLOSS.

A Man Who Fights for His Wife's Comfort and Good Name and a Woman Who Doesn't Understand.

SYNOPSIS OF PREVIOUS CHAPTERS.

CHARLEY LELAND, a Canadian ranchman, is visiting at Barrock-holme, on the Scotch border, the home of Jimmy Denham, whom he had previously entertained on his ranch in Canada. The estate is much depleted, and Denham and his father are anxious to marry his sister Carrie advantageously in order to prevent the foreclosure of a mortgage. Until Leland's arrival the only apparent possibility is an objectionable person named Aylmer, but Leland gets in the running, partly through the machinations of Eveline Annersly, a middle-aged lady, and proposes to the girl. She tells him to wait until the next day.

Then she consents to marry Leland after telling him that she does not love him. Winter covers the Northwest when they go to Canada, he with an awakening love and she with bare toleration. The feeling between them is strained when Carrie begins to arrange for a visit by Mrs. Heaton, a woman whom Leland knows to be of bad character. There is a scene in which Carrie accuses Leland of having bought her, and Leland admits that her father took all Leland could offer.

The breach between Leland and his wife widens and, partly as an active antidote for his bitterness, he organizes with the farmers and mounted police for the suppression of horse-thieves. In a brush with the thieves Leland and a trooper kill one of them, but his companion gets away and Leland knows that he will be marked for vengeance.

CHAPTER XI.

Seed-Time at Prospect.

WINTER had gone and the frost-bleached prairie lay steaming under the warm April sun, when Carrie Leland stopped her team on the crest of a low rise. It was a light wagon that she drove, an easy-running vehicle on four high wheels with a shallow, box-like body, made especially for her, and hung and seated luxuriously on nicely adjusted springs.

The harness and horses matched it, for there were very few bronco teams on the prairie to compare with that one. They were young, but Carrie liked a mettlesome beast, and Leland had chosen and broken them carefully.

It was the same with everything he had given her. Only the best that could be had seemed good enough to him, and now and then she almost resented his generosity. Save when he lost his temper, which, however, happened not infrequently, she could not put him in the wrong, and she felt at times that it would be a little easier for her if she could charge him with neglect or had something to forgive him.

He was gravely considerate for her comfort, but it was very seldom that he went any further, and while this should have pleased her, she was not quite sure that it did.

On the morning in question Eveline Annersly, who had been at Prospect a month now, sat beside her rejoicing in the sunshine and rush of warm wind. She had reached the age when one looks for little and makes the most of what comes.

The prospect would also in all probability have had its attractions for any one

Began in the April Railroad Man's Magazine Single copies, 10 cents.

with eyes to see and a nature that could respond to the reawakening pulse of life in all they rested on. Around three-fourths of the horizon the bleached prairie, tinged now with sunny ocher, melted into the sweep of lustrous blue, but in the foreground the sod was gemmed with little crocus-like flowers, and flecked here and there with creeping green. All this was waste and virgin, but on the fourth side tall bands of golden stubble and belts of ashes were narrowed down by the steaming, chocolate-tinted clods of the plowing.

They ran up in long rippled ridges from Prospect, where the birches gleamed silver, across the wide dip of basin, and over the rise that fringed it into the luminous blueness of the sky. That was man's work, and man at Prospect worked unusually hard, for it was not his part there to plow where others had also sown, but to grapple with the wilderness and subdue it, in fulfilment of the charge given him when the waters dried.

The wilderness was there, leagues of it, but it required a stout heart, as well as steadfast toil, to break it and cover it with red-gold wheat when the latter was a drug upon a falling market.

Eveline Annersly, faded as she was, was dainty still, and she sat in the wagon smiling with the sunlight lying warm on her beautiful hands, a part of the color scheme in her soft, gray-tinted draperies, and not a blotch on it as some women of the cities would have been. She stood for tranquil autumn when the wealth of fruits has gone, but her companion with the crimson lips and dusky eyes, was spring, when as yet Nature is only stirring. Eveline Annersly realized it vaguely and at times felt a little thrill of concern, for she knew there was fire beneath that cold exterior and the awakening would come. Then a good deal would depend upon whether the sudden untrammeled growth of the girl's nature would cling for warmth and shelter to the man who was her husband.

In the meanwhile she watched the toiling teams coming on across gray grass and golden stubble in *echelon*. Men sat above the horses' heads on the driving-seats of the big gang-plows, and from amid the curling brown clods came the twinkling flash of steel.

The men had brown faces, and some of them bare, brown arms. Sun and wind had burned and beaten them and their garments to the color of the soil they sprang and drew their strength from. They seemed almost a part of it, as they and the patient beasts did their share in the great harmonious scheme, which in return for the sweat of effort gives man bread to eat.

This was not English farming, mixed and variable, but an unlocking of Nature's long-stored wealth in mile-long furrows that should fling the golden wheat by trainload and shipload on the markets of the world. Even Eveline Annersly, who was not greatly interested in agriculture, could realize that.

"It is a tremendous farm," she said. "We have nothing like it in England. The length of those furrows appeals to one's imagination. How big is it, Carrie?"

The girl smiled a trifle languidly. "I really don't know," she said. "Charley has told me, but I never could remember things like that.

"He seems rather proud of having broken—I believe that is the right word—most of it out of the prairie. In fact, he is easily content. To break so many acres every year seems his one object in life."

"I wonder whose fault that is?"

"I don't think it's anybody's. Presumably, it's a question of temperament. My husband appears to like his occupation and absorbs himself in it."

"Which, of course, is just as you would have it?"

The girl made a half-petulant gesture. "Oh," she said, "I suppose so. I naturally did not expect Charley Leland and I would have many mutual interests when I married him.

"It would have been, in a way, a trifle ridiculous. Still, he is very good to me."

"So I should have fancied," and Eveline Annersly's eyes twinkled. "Did it ever occur to you that he might have expected a good deal from you?"

A flicker of color showed in Carrie's cheek. "In that case he, at least, shows no sign that he misses anything. As you know, we scarcely see him for two or three days together every now and then. I believe these teams are in the field by

six in the morning, and it is usually dark when he comes in again."

"I wonder if you quite realize the restraint and self-denial implied by a life of that kind? After all, your husband is probably no fonder of wearing himself out than most other men. Presumably he has a purpose, or finds it necessary."

She stopped a moment, and smiled in a curious fashion as she glanced at her companion. "I suppose you have heard that they are building a new peach-house and vinery at Barrock-holme?"

A bright crimson spot burned for a moment in Carrie's cheek. "I hadn't," she said, with a trace of bitterness. "Jimmy, of course, never writes, and even Alice seems to have forgotten me.

"In fact, I don't suppose there is one of them who ever spares a thought for me now. Aunt Eveline, you are to stay here for ever so long?"

Mrs. Annersly nodded reassuringly. "Of course, my dear," she said. "As you perhaps know, it is a good deal your father's fault that I am reduced to living on my friends, and I really think some of the money he is apparently spending on the peach-houses should have come to me. I have been inclined to wonder where he got it from."

Carrie Denham was usually reposeful, but a trace of the confusion she felt showed itself in her face. Eveline Annersly understood her as well as she understood herself, and being aware of this she stood less upon her guard.

"Oh!" she said; "I think you know. It is a little hard to bear, isn't it? Have they always been the same?"

"One would almost fancy so. Henry Annersly was well off when he married me, and everybody knows I have scarcely a penny. Where the rest has gone only Branscombe Denham knows, though I'm not even sure he does.

"No doubt he didn't intend to lose it, but money won't stay with him. And he never even writes to you?"

Carrie laid a hand upon her arm. "Aunt," she said, "stay with us altogether. Charley likes you, and I can't let you go."

The little lady's eyes grew gentle, but there was a faint smile in them.

"My dear, I think I know what you are feeling, but, after all, you deserve it, and I'm not so very sorry for you. I'm going to make your husband stop and speak to me."

Their team stood stamping impatiently on the virgin sod, and Leland came up just then foremost of the long line of men and beasts. He was sitting upright on the driving seat of a great machine, dressed in old blue jean that was open at his sunburned throat, with a wide gray hat on his head.

His arms were bare to the elbow, corded, hard, and brown, and his face was as brown as the stubble that rolled away in long waves beneath the threefold shares. Four splendid horses plodded in front of him, and the stain of the soil and the same stamp of enduring strength was on him and them. He pulled the team up and, springing down, came toward the wagon with his hat in his hand.

"You are going in to the railroad?" he said.

"Yes," said Mrs. Annersly. "Carrie wants some things, but I understand we are to stay the night at Mrs. Custer's on the way."

"Well," said Leland, "I may see you there. There are some new harrows and seeders I have to wire about, but I don't expect to get in until daylight to-morrow."

"You are going to drive all night?"

"I may get an hour's sleep before I go. You see, I have to be back by noon to-morrow. Our summer is short, and there is a good deal to do. The grain that goes in late is often frozen."

He pointed, as if in explanation, to the great sweep of furrows that ran back, narrowing all the time, to where Prospect nestled like a doll's house beneath its bluff, and with a great trampling two other teams came up just then. They went by amid a ripping and crackling of fibers as the prairie opened up beneath the gleaming shares, and Leland nodded, with a little quiet smile.

"Oh, yes," he said, "little time to do it in, and a good deal to do. Some of us were born to feel that way."

"Not all," said Eveline Annersly. "There are, as you know, men who waste their substance to while the day away. You are not of that kind. Perhaps it's fortunate for you."

Leland smiled again. "I don't quite know. There's a great order and system that runs things, though I can't quite get the hang of it—I haven't time. Every man works in this country, as all nature does. Those little grasses have been ten thousand years building up the black loam I'm making wheat of.

"The mallard, the brent goose, and the sandhill crane—you can see them coming up from the south in their skeins and wedges all day long—have to hunt their food from the shores of the Caribbean to the Pole. Well, one feels there must be a balance struck some day, and the men who don't do anything are having the soft things now."

He laughed good-humoredly, and struck one horse that turned its head to nibble at his shoulder upon its glossy neck. "I'll be sorry for this by and by, but you have a habit of making a man give himself away."

"Then we will be practical. Are you going to sow all that plowing?"

"I am. I expect to break two hundred acres more. There are folks who want the wheat, and we'll feed the world some day."

"But wheat is going down."

"It is," and Leland's face grew a trifle hard. "No bottom to the market, apparently. That's why I'm buying new machines and cutting things down and down. We must have everything that can earn or save a dollar at Prospect now."

Carrie Leland was struck by something in her husband's face. It was a comely one, as well as forceful, clean-skinned in spite of its deepness of tint, while there was a clearness in the steady eyes that is seen only in those of such men as he. His features bore the stamp of endurance and optimism that were strongest in the time of stress and struggle.

Sun and wind, fruitful soil and barren, nipping frosts, drought and devastating hail, all these were things to be grappled with or profited by alike willingly. He and his kind in the new countries give without stint all they have been given, from the sweat of tense effort each and every day to the smiling courage that cuts down hours of rest and goes on sowing when seasons are adverse and markets fall away.

There is, in turn, usually set upon them plainly the symbol of man's dominion over the material world. The patient beasts that toiled with him recognized it, and again one of them muzzled his shoulder and nibbled at his arm.

"And," said Mrs. Annersly, "if the market still goes down?"

Leland laughed, an optimist's soft laugh. "Then we will go under, I and the rest. That is, for a time.

"Nothing can stop us long, and we will start again. Carrie, I am glad to say, is provided for."

He struck the horse with the palm of his hand. "I have been keeping you, and there is a good deal to do."

The big team stamped and strained, he swung himself into the driving-seat and, with a crackle of fibers, the great plow rolled away, while Mrs. Annersly smiled as Carrie shook the reins.

"If I were twenty years younger I almost think I should fall in love with your husband," she said. "There is a breadth of view and forcefulness, even in his simplicity, Reggie Urmston could never attain, and his egotism becomes him. It's the quiet assurance of a man who knows what he can do, and could almost fancy that he is doing a good deal.

"He takes all the risk, and you are provided for. Carrie, do you know what that man gave or lent—and it's much the same thing—your father?"

"No," said Carrie, with the spot of color once more showing in her cheek. "He would never tell me, and how could I ask him? It is a hateful subject. Why should you mention it?"

Mrs. Annersly looked out over the prairie they were swinging across with a curious smile in her eyes.

"Your husband is cutting down even his hours of sleep," she said. "He is driving forty miles to the railroad when his work is done to-night, while Branscombe Denham is building peach-houses at Barrock-holme."

Carrie flushed crimson, and flicked the team with the whip. "You are the only friend I have," she said; "and yet you sometimes take a curious pleasure in tormenting me. Do you expect me to turn against my own flesh and blood?"

"We have it on good authority that the wife should cleave to her husband, and they are one. There are, of course,

people nowadays, and probably always have been, who fancy they know better."

The girl caught her breath a little. "Ah!" she said; "you don't quite understand. If he were in difficulties, I would face them with him cheerfully, but he would never let me.

"It was not said in bitterness, but when he told you I was provided for, it hurt me. Why should I be safe, who helped to ruin him?"

Eveline Annersly glanced at her with gravely questioning eyes. "My dear, I rather fancy you have come near throwing a good deal away."

"Whether the thing was of great value I do not know, and it is scarcely likely I ever shall know. I certainly threw it just as far as I was able to, and though I do not know whether I was wise or not, it is done, and there is no use being sorry."

Then she swung the whip again, and sent the light wagon flying headlong down a long, grassy slope. Mrs. Annersly found it advisable to hold on, and, in any case, she had said her say. Her words must lie with the rest she had dropped until in due time they should bear their fruit. Eveline Annersly was old enough to be something of an optimist, and she fancied that time would come.

In the meanwhile Leland went on with his plowing, and save for an hour's halt at noon to rest the teams, and the six o'clock supper, toiled until a wondrous green transparency, through which the pale stars peeped, hung over the prairie. Then, when the cold clear air was as invigorating as wine, he led the weary beasts to the stables, and walking stiffly to the homestead flung himself into a chair. He was aching a little, as well as drowsy.

"Jake," he said to the man who was busy in the room, "I'll want some coffee in an hour or so. Make it black and strong."

Then Gallwey came in, and they sat for an hour, turning over a file of accounts, from which Leland made extracts on a sheet. He laid it down at last, and pointed to a bundle of papers on a dusty shelf.

"I was worrying over them before I slept last night, and I'm no wiser now," he said. "The one thing certain is that wheat is going down, and what it will touch next harvest is rather more than any man can tell. There are too many climates from California to New Zealand to reckon with.

"If we stop right now and sow, we'd come out just clear as the market stands. I had expected to have quite a pile in hand, but with the drop in values the bank balance went with it."

"It certainly did. I was a trifle astonished when you cabled me to arrange for the credit at Winnipeg. You were singularly extravagant for once."

"I was," and Leland laughed, somewhat harshly. "Still, under the circumstances, it wasn't quite unnatural. Any way, we have wiped it out, and it has crippled me for the next campaign."

Gallwey asked no injudicious questions, but he wondered how his comrade, who had curiously inexpensive tastes, had got rid of all the money he had apparently spent in England. Mrs. Leland was not an extravagant woman, so far as he was aware.

"The question is how we should meet a further drop?" he said.

"That's not very difficult, unless the drop is too big. We have for fixed charges the upkeep of this homestead, besides wages, and the feeding of the boys we can't do without and the working horses. That's not going to alter more than a little, anyway.

"We have the seed, and there are broken horses on the run, so it's going to cost us just a few teamsters' wages and the thrashing to put oats in on as many acres as we can break. You see, we get a bigger crop on much the same cost."

"And the fall breaking?"

"Wheat," said Leland. "Every acre."

Gallwey drew in his breath. He knew his comrade's boldness, but this was almost incredible. Cautious men were already holding their hand, but Leland purposed to sow more freely than ever.

"It will be a huge crop," he said. "About the biggest that was ever raised in this country. Now, of course, within a margin, there's a good deal in your notion in increasing the ratio of production to dead charges, but, after all, you can't sow a third as much again without it costing you something. What if the price drops far enough to make that a loss?"

Leland laughed again, a hard laugh. "Then," he said, "it will be one of the biggest smashes ever known in this country, but nobody's going to lose very much when they've taken the land and stock from me. It's tolerably steep chances, but they're all on me."

Gallwey's uneasiness showed itself in his face. The magnitude of the risk almost dismayed him, but while he sat silent Leland made a little gesture.

"Tell Jake to bring that coffee in, and see the wagon's ready," he said. "I'll be off, and let the team go easy.

"They'll put me on the wire at the depot at five o'clock when the local freight comes through. I should be back by noon. You'll start every man as usual."

He drank the bitter coffee to keep himself awake, and climbed into his wagon, while Gallwey shook his head as he watched him jolt away into the shadowy prairie.

"It's a big thing, almost too big for any other man," he said. "It was the confounded bank balance against him that drove him into it. I wonder how he spent all that money, or if Mrs. Leland knows."

CHAPTER XII.

Leland Makes a Protest.

THERE were two breakfasts served in the Occidental Hotel, a dilapidated and weather-scarred frame building, which stands at the foot of the unpaved street of a desolate little town beside the railroad track. Most men commence their work early in that country, and the first meal was laid at six, but there was another from eight to nine, when a train came in.

This was a somewhat unusual concession to the needs of the few passengers who alighted there, because throughout most of the Northwest no self-respecting hotel cook would prepare a meal between the fixed hours for a cabinet minister or a railroad director. Nor would the proprietor vary a dish, for in his estimation what suffices for the plainsman is quite good enough for anybody else.

The table had just been cleared, when a small and select company of men, who had nothing in particular to do, pulled their chairs up to the stove, and as many of them as could find room there put their feet on it. It had not been lighted that morning, or blackleaded for many days, but habit was strong in them, for there are, even in that country where most men work unusually hard, a few who spend their lives lounging on hotel verandas and sitting around the stove.

Benches without backs ran down either side of the uncovered table, in the middle of the room, and the rest of the furniture consisted of the stove, which was very rusty, and the few chairs the loungers had appropriated. Two of these gentlemen wore store-clothing, with trousers so tight that one wondered how they had ever got them on, and two blue jeans which needed patching. They had hard, brown faces, with no sign of amiability or any particular intelligence in them, but they could talk, as men of their kind, with no great taste for work, usually can.

Outside the open window bright sunshine flooded the veranda, and fell upon the bare frame-houses across the way. A couple of light wagons, with the mire of the spring thawing not yet washed off them, passed clattering and jolting among the ruts, for the streets of a prairie town usually resemble a morass when the frost breaks up.

When they had gone a police trooper swung by on a spume-flecked horse, with the dust of a long journey thick on his trim uniform. Then there was silence again, until one of the loungers looked up from the greasy paper he was reading.

"Wheat still going down," he said. "There's no bottom to the market, or if it had one it's dropped out. Our boss farmers are going to feel it if things go on like this, but nobody's going to be sorry for them. They figure they own the country already."

"I hear Leland, of Prospect, is plowing the same as if wheat was going up," said another man.

The third of the party shook his pipe out and pursed up his face, which was not an attractive one, into an expression of pitying contempt.

"Leland's a blame fool, and always was," he said. "I worked for him once. It's the way the market went with him

that made him what he is. That, and nothing else."

"Why d' you quit Prospect, Jasper?" asked his comrade, and the others grinned.

A vindictive gleam crept into the man's eyes. "Well," he said, "I've no use for being bossed by that kind of man, and one day I up and told him what I thought of him. There was considerable trouble before I walked out. Anyway, between the market and the English girl he married he's fixed just now."

"She's slinging his dollars away?" said somebody.

"With both hands, and too stuck on herself to be civil to him. They're made like that in the Old Country. Leland's no more to her than the hired man, one of the boys told me."

"Why'd she marry him?"

"For his dollars. That's a good enough reason, and it's quite likely there was another one. Girls like her have got to marry somebody over there, and the men with dollars are kind of particular.

"I guess it's not astonishing. If you get hold of an English paper it's full of their goings on."

"That's all right," said one of the others. "Still, until they're married they've got to be careful.

"Afterward it don't so much matter. Unless all's quite straight, buyers hold off and the figure comes down."

"It's quite easy guessing that's what was wrong with Mrs. Leland. What else would a girl with her looks make sure of him for? Charley Leland comes along with his dollars, and they plant her right onto him. It's even betting she goes off with another man if the market breaks him."

He stopped abruptly, as his neighbor drove an elbow into his ribs, and his mouth gaped open as he dropped his feet from the stove. Then the others moved uneasily in their chairs, for a man stood in the doorway, regarding them with a singularly unpleasant smile.

"Stand right up, Jasper, you—hog!" he said.

Jasper sat still, glancing at the others, as though he felt that while none of them appeared in any haste to do so, it was their duty to support him, until one evidently remembered that there were, after all, four of them.

"He's sitting where he is, Charley Leland," he said. "Nobody asked you to hang 'round listening, and if you don't like our talk you can go outside again."

Leland showed no sign of having heard him. "Get up," he said, "and tell them you're a liar!"

Jasper sat still. He was tolerably active and muscular, or he would never have worked at Prospect, but there was a singularly unpleasant look in Leland's eyes, and his quiet incisiveness was portentous. Still, he seemed to realize that his comrades expected something of him.

"Oh, go home!" he said. "I guess you've plenty trouble there without making any here."

In another moment Leland had crossed the room and swung him to his feet, while nobody was very clear about what happened during the next few seconds. There is a certain animal courage in every man who has lived by bodily toil, and Jasper, who had also a vindictive temper, did all he could. When he once felt Leland's hand he clinched with him, and reeling locked together, they fell with a crash against the table and overturned one of the benches. Then, gasping, panting, floundering, and striking when they could, they went swaying toward the door, while Jasper's friends howled encouragingly, and men attracted by the uproar ran out of the opposite store.

Foot by foot they neared the veranda, and when Leland, gasping with passion, made a tense effort, they staggered out into it. There was a crowd below it now, and they set up a shout as Leland's grasp sank lower down the other man's back.

Jasper, it seemed, was not altogether a favorite of theirs. After that there was silence for another moment or two, while the two men swayed and strained with scuffling feet, until one of them suddenly relaxed his hold and, reeling backward, plunged down the veranda stairway.

He struck a rail as he did it and, overturning, came down headlong in the unpaved street. Somebody dragged him to his feet, and he stood still a moment, hatless, with the dust upon his flushed face and his jacket rent, gasping with futile rage, and then slunk away through the gap that was opened up for him.

Leland leaned somewhat heavily on the rails above. He had also lost his hat,

while the veins were swollen on his forehead and the blood trickled down his chin from one of his bleeding lips. His face was dark with rage, and he was not exactly an attractive spectacle.

Then he raised himself stiffly, and disappeared into the hotel, from which three other men made their way out with as much haste as was compatible with any show of dignity. Nobody had noticed a light wagon that had stopped just outside the crowd.

A few minutes earlier Carrie Leland and Mrs. Annersly had driven across the railroad track on their way to the dry-goods store, and as the wagon jolted in the ruts the girl pointed to the town, with a little gesture of repugnance.

"Could one well imagine anything less attractive than this?" she said. "Still, I believe the desolate place is looked upon as a rising city, and they are actually proud of it."

Eveline Annersly glanced up the single street with a smile. It somewhat resembled a plowed field, though the ruts and ridges the wheels had made were crumbling into dust. Above it ran a rickety sidewalk of planks, by means of which foot-passengers could escape the mire in spring, and crude frame-houses, destitute of paint or any attempt at adornment, rose from that in turn.

The fronts of most of them were carried sufficiently high to hide the pitch of sloped roof, so that they resembled squares of timber pierced by little windows. Above the topmost of the latter there usually ran a blatant but half-obliterated commendation of the wares sold within, for in the average rising prairie town every house is, as a rule, either a store or a hotel.

"Well," she said, "one could scarcely call it picturesque, but we have colliery and other industrial villages at home that are not very far behind it."

Carrie laughed. "Still, we have the grace to attempt to justify them on the score of necessity, while they hold this place up as a model and a sign of progress. It is a barbarous country."

"Including Prospect, too?"

"Of course! Still, Prospect makes no pretense of civilization. It is part of the prairie, and nobody could expect too much from it."

"Or of those who dwell in it?"

A tinge of color showed in the girl's cheek.

"Well," she said with faint scorn, "I don't mind admitting that, too. They are a distinctly primitive people."

Mrs. Annersly said nothing further. She had her fancies respecting the reason for the girl's bitterness and did not think that her marriage accounted for all of it. This was, in one respect, as she would have it, and she sat silent until Carrie pulled the team up close to the dry-goods store.

A crowd was collecting in front of it, and they could get no farther. While they sat there a clamor broke out, and amid a sound of scuffling two men reeled across the veranda of the hotel opposite them. Their faces were not at first visible, and Carrie smiled unpleasantly when the crowd encouraged them as they grappled with one another.

"That," she said, "is evidently considered the correct thing when Western gentlemen have a difference of opinion. You will notice that nobody makes any attempt to put an end to it. After all, since they cannot keep their brutality under restraint, there is something to be said for the use of pistols."

In another moment one of the men brought his fist down with a dull thud upon the other's half-concealed face, and a little sparkle of scornful anger crept into the girl's eyes.

"It is a little disgusting, but we cannot get on without driving over somebody, and it would be absurd to have to go away again," she said. "What brutes men of their kind are."

"Still, there is something to admire in their brutality," said her companion. "That man has both lips cut open. One would have fancied the blow would have stunned him, but he seems to be disregarding it and is holding on."

She stopped a moment, with a catching of her breath. "Ah," she said, "there will be no more of it."

One of the men loosed his hold and reeled down the stairway, while for the first time they saw the face of the other clearly as he leaned upon the rails. It was not exactly pleasant to look at with the passion in it and the blood trickling from the swollen lips, and Carrie's hands

tightened convulsively on the reins as she urged the team forward when the crowd broke up.

Her cheeks were almost colorless, but she met Eveline Annersly's eyes steadily and her voice had a bitter ring in it.

"Yes," she said, "it is my husband. No doubt his comrades would expect me to be pleased with him."

She stopped a moment and pulled the team up again. "I wonder if you can guess what it will cost me to go into that store, but I am going. After all, it would be absurd for Charley Leland's wife to be particular."

Mrs. Annersly's face was compassionate. "My dear," she said, "he had probably a reason for it."

"Of course!" said Carrie languidly. "No doubt they differed over the points of a steer or one of them was too attentive to the waiting-maid. I believe they have two at the Occidental."

She swung herself down, coldly ignoring the hand of a man who then seized the reins, and when Mrs. Annersly had descended went into the big store. She was perfectly conscious that everybody inside it was watching her, but she made her purchases with a chilly serenity and drove away.

She did not inquire for Leland and was unaware that the object on the outskirts of the town was his wagon. Had she known it she would have held her team in a little, for she had not the least desire to overtake him.

This, however, was scarcely likely, for it was a long way to Prospect, and she purposed to break the journey for an hour or so at an outlying farm to which the trail turned off in a league or two.

In the meanwhile Leland drove on as fast as his team, which had had only a few hours' rest, could go, until he reached another crossing of the ravine where Sergeant Grier had waylaid the outlaws. The trail dipped in sharp twists between the birches into the hollow, and he had raised himself a trifle on the driving-seat to swing the team around a bend when one side of the wagon dropped suddenly beneath him.

In another moment he went out headlong, and coming down heavily on his shoulder lay as he fell, half-dazed, for a minute or two. When he pulled his scattered senses together he saw that the team had stopped and one of the wagon wheels lay not far away from him. He rose with difficulty, feeling very sore and dizzy, but finding that he could walk, picked the wheel up.

The brass cap of the hub had gone, and so had the nut which locked the bush on the axle. He had put a new one on not long before and felt sure it had not come off of itself, as he remembered how tightly it had fitted.

Still, it was evident that if anybody had loosened it, the sudden strain upon the wheels as the wagon swung around the bend might have jarred it off altogether, though it had held that far.

That question could wait, however, and rolling the wheel downhill he attempted to put it on the vehicle. A prairie-wagon is usually light enough when unloaded for a strong man to raise one side of it, but he was badly shaken by his fall. Indeed, he sat down gasping and dripping with perspiration before he accomplished it, and it is probable that few other men would have persisted in the attempt at all after a long day's plowing, a night spent upon the trail, and a sixty-mile drive.

He was sensible of a painful headache and found that a branch had scored his cheek, but when he had fitted another nut from the box in the wagon he drove on and reached Prospect almost as worn-out as the team. Still, after a few mouthfuls of food he once more climbed into the driving-seat of the big gang-plow.

Summer is short in the Northwest, and the wheat that goes in late runs a risk of freezing, while the efforts of every man were needed in the struggle he was making. So he drove the threefold furrow through the crackling sod until at last the sun dipped, a copper ball, below the prairie's verge, and leaving his team to the others, he went back to the house, too weary to straighten himself.

The birches about it cut in ebony lacework against a cold, green transparency, the chilly air stirred the blood like wine, but the worn-out man noticed nothing as he plodded, heavy-eyed, through the crackling stubble.

He had just finished his lonely supper and was sitting, dressed as when he

came in, with the dust of the journey on him and smears of the soil upon his heavy boots and leggings, when his wife, who apparently did not know he was there, entered the room.

She started a little as she saw him, and Leland drowsily raised his hand to the raw, red scar on his face. He had not remembered that his lips were twice their natural size and very unpleasant to look at, though they pained him.

"It doesn't amount to much," he said deprecatingly. "I've been too busy to fix it. I got thrown out of my wagon."

Carrie straightened herself a little and a sparkle crept into her eyes.

"Your explanation is a little unnecessary," she said coldly. "I don't presume to trouble you with any inquiries."

Leland looked at her, as though puzzled, with half-closed eyes. "They wouldn't have been unnatural in the case of a man who had been flung headlong out of his wagon."

"One excuse will serve as well as another. The difficulty is that I happen to have some idea as to how you got your injuries."

The man rose wearily. "I have the pleasure of telling you that I was thrown out coming down the ravine."

"And I," said Carrie coldly, "was at the settlement at the time you furnished everybody with that interesting spectacle on the hotel veranda. I don't wish to be unduly fastidious, but hitherto, so far as I know, you have not taken the trouble to wilfully deceive me."

Leland turned toward her with his cut lips pressed together and his scarred face showing hard and grim, and then he made a little gesture of weariness.

"Well," he said, "I guess it doesn't matter. I don't suppose I could make you think otherwise than badly of me."

He stopped a moment and then laughed a little.

"I have faced the world alone so far and held my own with it. I suppose there is no reason why I shouldn't go on doing it."

"I believe that is, after all, what most men have to do," said Carrie. "I shall endeavor to be as small a burden on you as I can manage."

Then she turned and left him, but, as had happened on other occasions, her heart smote her in spite of her anger, for he looked shaken and very weary, as well as lonely, in the big, desolate room.

CHAPTER XIII.

Carrie Abases Herself.

THE warm spring day was over, and in that land of contrasts where there is no slow melting of season into season, it is often almost unpleasantly hot while the last snowdrifts linger in the shadows of the bluffs. Carrie and Mrs. Annersly and one other woman sat by an open window of Carrie's sitting-room. The sun had gone, but, as usual at that season, a wonderful green transparency overhung the vast sweep of prairie that had shaken off its hues of white and gray and was fairly green again, save where the wide strip of plowing cut athwart it.

Above it hung a pale, sickle moon, and down the long slope, over which the harrow-torn furrows ran, lines of men and weary teams were plodding home. Around the rest of that half of the horizon the prairie melted into the distance imperceptibly, vast, mysterious, shadowy, under a great tense silence, while the chill breeze that came up out of it had in it the properties of an elixir.

But it was not at the prairie that the thin-faced woman, who lay in Carrie's big chair, was looking. She had watched the pageant of the seasons too often before, and to her and her husband they had usually meant only a variation in the ceaseless struggle which had left its mark on both of them.

In that country man has to contend with drought and harvest-frost and devastating hail, for it is by hard effort and long endurance alone that the Western farmer wrings his living, and usually little more, from the soil. When seasons are adverse, and they frequently are, a heavy share of the burden falls upon the woman.

Mrs. Custer had borne hers patiently, but her face, which still showed traces of refinement, was worn, and her hands and wrists were rough and red. While Thomas Custer toiled in the frost and sunshine from early dawn to dusk to profit by the odd fat year, or, more often, to make his losses good, she had cooked

and washed and baked for him and the "boys," which term in that country signifies every male on the homestead.

She had also made her own dresses, as well as some of her husband's clothes, besides patching the latter with cotton flour-bags, and yet the ceaseless struggle had not turned her bitter, though it had left her weary. Perhaps it is the sunshine or something in the clean, cold airs which come up out of the vast spaces of the wilderness, for man holds fast to his faith and courage in that land of cloudless skies.

It was the rich, dark curtains, the soft carpet one's feet sank into, the dainty furniture, the odds and ends of silver, and the few good etchings the faded woman glanced at with wistful appreciation. She had been accustomed to such things once, but that was long ago, and she had never seen anything like Carrie Leland's room on the prairie. She turned to the girl with a contented smile.

"It was so good of you to have me here, although if Tom's sister from Traverse hadn't promised to look after him, I couldn't have come," she said. "It is three years since I have been away, and to know that one has nothing to do for a whole week is almost too delightful now."

Eveline Annersly's eyes twinkled. "I'm afraid that some of us have that consolation, if it is one, all our lives," she said. "They keep you busy at the Range?"

"From morning to night, and now we must work harder than ever, with one of the boys in Montreal and wheat going down. One feels inclined to wonder sometimes if the folks who buy our cheap flour would think so much of the quarter of a dollar they save on a sack if they knew what it costs us."

She stopped a moment with a wistful smile. "I'm afraid this is going to be a particularly lean year for a good many of us. Last year I was busy, though I had a Scandinavian maid, but I shall be single-handed now, and the grocery bill must come down, too. It's hard to pare it any closer when everything you take off means extra work, and the boys must be fed."

Mrs. Annersly glanced at Carrie, who for some reason did not meet her gaze.

"I think you said that you came from Montreal," she said. "You must have found it very different on the prairie."

"I certainly did. I had never done anything useful or been without all the dollars I wanted when I married Tom Custer, who had gone out a year earlier. My friends were against it, and they would probably have been more so had they seen the Range as it was then.

"The house had three rooms, and one was built of sod, while all the first summer the rain ran in. Still, we made out together and got on little by little, struggling for everything.

"A new stove or a set of dishes meant weeks of self-denial. Now, I seem to have been pinching a lifetime, though I am only forty; but Tom was always kind, and I do not think I have ever been sorry."

She lay still, nestling luxuriously in the softly padded chair, and, in spite of her worn face and hard hands, the stamp of refinement once more showed plain on her. It was twenty years since she had turned away from the brighter side of life, and, though she did not seem to expect compassion, Eveline Annersly felt sorry for her.

There was also a certain thoughtfulness in Carrie Leland's expression, which seemed to suggest that a comparison was forced upon her. Both of them vaguely realized that it is not without cost that the new lands are broken and the wilderness subdued.

Woman, it seemed, had her part in the struggle, and Mrs. Custer, who had borne the burden patiently, was one of the many who serve in patience and with busy hands.

"Have you never been home since you were married?" asked Carrie.

"Once," said Mrs. Custer with a faint shadow in her face. "I never went again. The others were not the same, or perhaps I had changed, for they did not seem to understand me. My younger sisters were growing up and thought only of dances, sleigh-rides, and nights on the toboggan-slides, as I suppose I did once.

"My dresses looked dowdy beside theirs, too, and they told me I was getting too serious. I felt myself a stranger in the house I was born in. One seems to lose touch so soon."